

Arkansas

Project Status



US Army Corps
of Engineers®
Vicksburg District

March 2013



Arkansas Project Status Book

for March 2013

This Project Status Book contains information on the latest progress of the Vicksburg District's projects in the State of Arkansas. You will find project maps with corresponding fact sheets for each project. Fact sheets cite authorization for the project and provide locations and project description information. Also provided are activities for the fiscal year 2013. District capabilities are included for additional funds that may become available. Additionally, important issues or impacts are supplied for a more detailed perspective of the project. The Vicksburg District publishes this book to provide valuable status information for ongoing projects. For your added convenience, a copy of this book in PDF format is provided on the disk attached below. However, if you should find you still have questions or need additional information about projects contained in this book, please contact:

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The Mississippi Valley Division

- We are 6 Interdependent Districts
- We have regional technical experts that bring expertise from the entire valley to work any water resource engineering challenge
- It is our pleasure to serve and provide the Nation's water resource engineering solutions
- We are...***BUILDING STRONG***





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BIOGRAPHY



Colonel Jeffrey R. Eckstein

Commander, Vicksburg District

Colonel Jeffrey R. Eckstein is the current District Commander for the Vicksburg District, Vicksburg, Mississippi. In this role he is responsible for navigation on 300 miles of the Mississippi River. He is also charged with flood risk management, environmental restoration and other projects within a 68,000 square mile area covering the states of Mississippi, Louisiana and Arkansas.

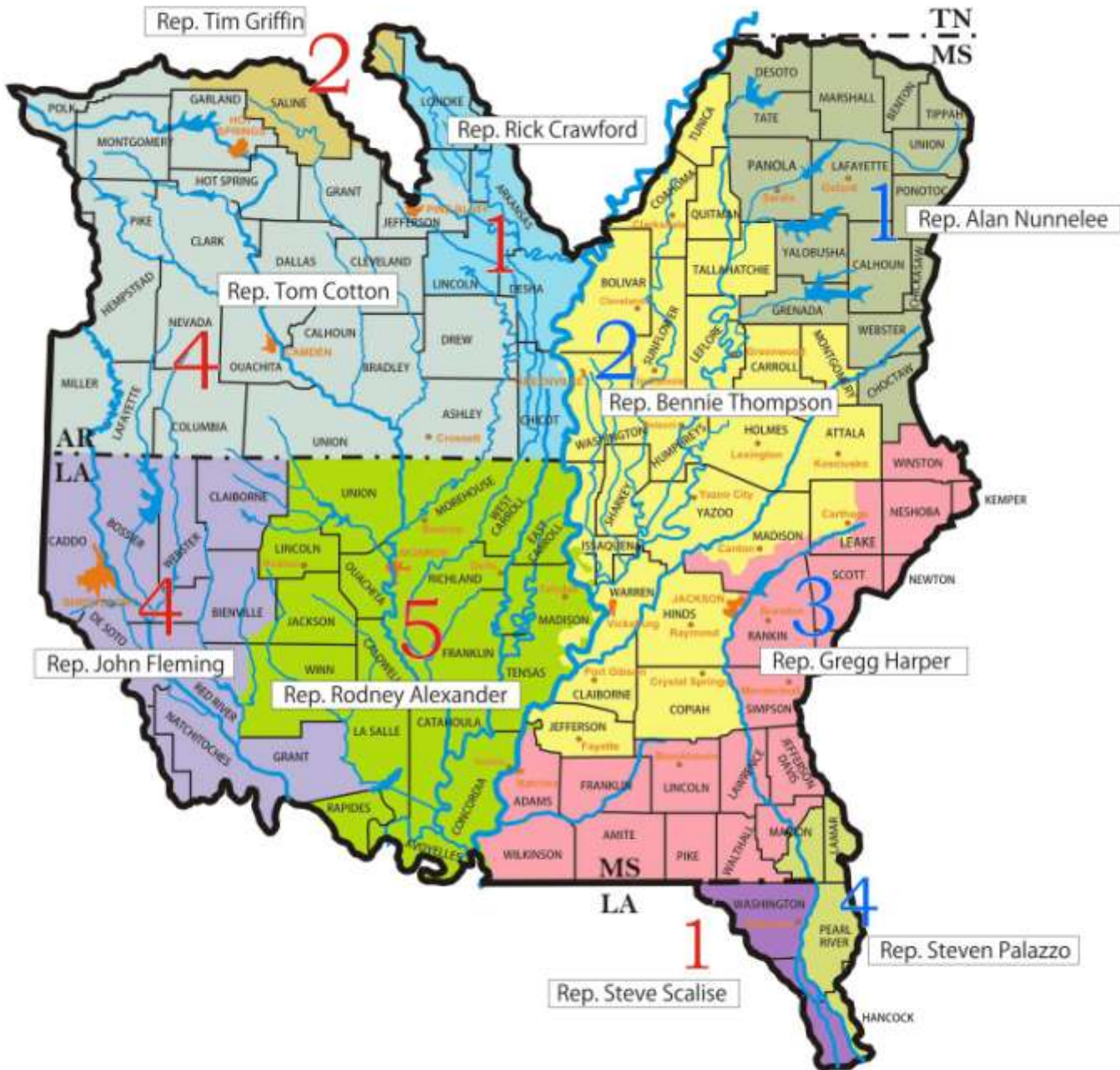
Colonel Eckstein is a native of Inverness, Florida. He is a 1985 graduate of the United States Military Academy with a Bachelors of Science in Civil Engineering. He received a Master's of Science in Civil Engineering from the University of Washington in 1994. He is a registered Professional Engineer in Florida and Virginia. His military education includes the Engineer Officer Basic and Advanced Courses at Fort Belvoir, Virginia, the Combined Arms Service and Staff School and Command and General Staff College at Fort Leavenworth, Kansas, and the United States Army War College at Carlisle Barracks, Pennsylvania.

Colonel Eckstein's company grade assignments include a tour in Germany where he served as a Platoon Leader and Battalion Intelligence Officer with the 54th Engineer Battalion (C)(M). While at Fort Benning, Georgia, he served in the 36th Engineer Group as an Assistant Operations Officer during Desert Storm and later as a Company Commander in the 43rd Engineer Combat Battalion (H) after the war. He participated in Hurricane Andrew cleanup and Operation Restore Hope in Somalia with the Battalion. Colonel Eckstein served as a Project Engineer with the Seattle District, United States Army Corps of Engineers executing construction projects at Fort Lewis, Washington. His projects included new construction, barracks upgrades, and historic renovation.

Colonel Eckstein's grade assignments include a second tour with the 36th Engineer Group serving as the Group Operations Officer and Design Engineer. He deployed to Nicaragua in support of Operation Fuerte Apoyo. He served as a Requirements Officer in the J8 of U.S. Joint Forces Command in Norfolk, Virginia. He commanded the 84th Engineer Combat Battalion (Heavy) in Hawaii. He deployed with the Battalion during OIF-2 and executed construction missions throughout Northern Iraq. Colonel Eckstein served as the G-7, Reconstruction Officer, for Multi-National Division North when 25th Infantry Division deployed in support of OIF 06-08. He then served as the Chief of Staff for the 25th Infantry Division. His previous assignment was the Senior Advisor for Infrastructure at the US Army Peacekeeping and Stability Operations Institute at Carlisle Barracks.

Colonel Eckstein is married and has three children.

Congressional Districts in the Vicksburg District



Governors and U.S. Senators

ARKANSAS

Governor Mike Beebe
Senator Mark Pryor
Senator John Boozman

LOUISIANA

Governor Bobby Jindal
Senator David Vitter
Senator Mary Landrieu

MISSISSIPPI

Governor Phil Bryant
Senator Thad Cochran
Senator Roger Wicker

The Vicksburg District encompasses 68,000 square miles in Mississippi, Louisiana, and Arkansas. Seven major river basins fall into our jurisdiction including the mighty Mississippi, the Red, Ouachita, Pearl, and Yazoo Rivers. The District employs a diverse profile of professionals, over 1000 strong, divided between our Vicksburg, Mississippi headquarters and eleven field offices spread over all three states. Established in 1873, the District is a center of expertise for many engineering and environmental solutions and has been recognized as Vicksburg's second oldest business. The District operates and maintains \$2.3 billion in real property and projects.



Including:

- 9** watersheds in Arkansas, Louisiana, and Mississippi including Bayou Meto, Big Black, Boeuf Tensas, Homochitto, Mississippi, Ouachita, Pearl, Red, and Yazoo
- 7** Mississippi River Ports handling over 8.5 million tons of cargo
- 5** Red River Ports handling over 1 million tons of cargo
- 12** locks and **9** dams on the Pearl, Red and Ouachita Rivers
- 3** Power plants capable of generating 168,500 kilowatts of electricity
- 10** Lakes with 1,673 miles of shoreline
- 21** Pumping plants
- 478** Flood control structures
- 1,252** miles of navigable channel
- 1,910** Miles of levees, including 460 miles along the Mississippi River
- 450,603** Acres of project and mitigation lands are managed for forestry and wildlife enhancement
- 146** Recreation areas with 2,772 campsites and 1,529 picnic sites with total estimated visitors of 8,888,000



Colonel Jeffrey R. Eckstein
Commander, Vicksburg District



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Vicksburg District
Value to the Nation

Mississippi River

Benefits

Project	Average Annual Costs	Average Annual Benefits
Mississippi River and Tributaries	\$210 Million	\$1.46 Billion

Benefit-to-Cost Ratios

The current remaining (FY13) benefit-to-cost ratio for the MR&T system is 45.3 to 1 and likewise the total benefit-to-cost ratio for the system is 3.3 to 1 at the 7% interest rate. The benefit-to-cost ratios are based on annualizing the remaining and total benefits associated with the completed project and dividing them by the respective annualized cost to achieve these benefits. All project benefits and cost are annualized at the 7% interest rate over the economic life of the project. For the MR&T the economic life is 100 years.

Levees

Consists of raising, strengthening and extending levees to provide protection against flooding.



Did you know?

The Mississippi River from its confluence with the Ohio River to Baton Rouge, LA supports the transport of over 176 million tons of cargo annually!

Channel Improvement

Consists of stabilizing riverbanks in desirable alignment and obtaining the most efficient flow characteristics for flood control and navigation by revetments, dikes, foreshore protection and improvements. This improves navigation conditions, stabilizes berms, and reduces maintenance dredging requirements.



Flood Risk Management

Flood risk management along the Mississippi River is provided through a coordinated system-wide water management program utilizing:

- Water storage reservoirs
- Levees
- Drainage Structures
- Channel Improvements
- Pumping Plants
- Weirs
- Sediment Reduction and Erosion Reduction Measures



Environmental Stewardship

The Corps has developed an environmentally sustainable project with the philosophy to avoid and minimize adverse environmental impacts. When impacts are unavoidable, compensation is made for the loss.

- The Corps has created over 6,700 acres of aquatic habitat from borrow areas
- The Corps has reforested at least 3,000 acres of borrow areas

Navigation

The Vicksburg District uses numerous tools to increase the safety and dependability of navigation on the Mississippi River.

- Dikes, revetments, and dredging are used to stabilize the navigation channel
- Channel Stabilization improves flow and reduces erosion
- The Vicksburg District supports two MR&T ports and five O&M ports

MR&T Ports

MR&T Port	2011 Commercial Tonnage	Jobs Sustained	Annual Payroll
Greenville, MS	2,680,962	540	\$12,600,000
Vicksburg, MS	2,470,356	4,000	\$80,000,000

O&M Ports

O&M Port	2011 Commercial Tonnage	Jobs Sustained
Rosedale, MS	1,401,472	325
Yellow Bend, AR	218,580	N/A
Lake Providence, LA	1,073,266	291
Madison Parish, LA	791,766	300
Claiborne Co., MS	N/A	N/A



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Value to the Nation



MISSISSIPPI RIVER

Ports



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Port of Rosedale (RM 585)

2011 commercial tons - 1,364,537
3-year average tonnage - 1,234,282
Industries: esco Resource, Clives Steel, Jimmy Sanders Agricultural, Jantran Towing, APAC

32 RM

Yellow Bend Port (RM 554)

2011 commercial tons - 214,988
3-year average tonnage - 267,633
Industry: Bruce Oakley, Ark City Tank Storage, T.L. James, Producers Rice Mill

17 RM

Port of Greenville (RM 537)

2011 commercial tons - 2,529,384
3-year average tonnage - 2,452,950
Jobs sustained - 540
Major Industries: Entergy, ConAgra Fertilizer, APAC, Bunge, US Gypsum, Greenville Gravel, Scott Fertilizer, Superior Boat Works, Farmer Grain Terminal, Ergon, Greenville Shipbuilders, USCG - Patoka

53 RM

Lake Providence Port (RM 484)

2011 commercial tons - 895,876
3-year average tonnage - 959,751
Jobs Sustained - 291
Industries: Terral River Service, Bunge

26.8 RM

Madison Parish Port (RM 457.2)

2011 commercial tons - 560,780
3-year average tonnage - 540,909
Jobs Sustained - 300-400

20.2 RM

Port of Vicksburg (RM 437)

2011 commercial tons - 2,622,710
3-year average tonnage - 3,105,163
Jobs sustained - 4,000
Designated Foreign Trade Zone, Port of Entry - maintains a U.S. Customs Service
Major Industries: Anderson-Tully Lumber, Big River Shipbuilders, Bunge-Ergon, Clitgo, ConAgra Fertilizer, Petroleum, DTE Petroleum, Ergon Marine & Industrial Supply, Ergon Refining, Falco Lime, Falco Chemical, Gavilon Fertilizer, Graham Packaging, Kinder Morgan Bulk Terminals, Magnolia Marine Transport, Neill Gas, Shell Oil, Quaker State, Polyvulc USA, Power Transport Service, Smith Towing A, Specialty Process Fabricator, US Coast Guard, Vicksmetal Armco, Waring Oil

Red River Watershed J. Bennett Johnston Waterway



Volunteer Partners		
Organization	Service Provided	
Aquatic Education Foundation	Operation and Maintenance of the Deepwater Regional Visitor Center	
Red River Parish Police Jury	Mow and clean areas of Lock 4 East and West Recreation Areas	
City of Natchitoches	Operation and Maintenance of the Grand Ecum Water Center	

Project Benefits

Benefits	Basic Project	With Gaming
Total investment (spending)	\$4,629,000,000	\$16,410,900,000
Total Sales	8,471,300,000	25,804,700,000
Total Earnings	2,770,200,000	8,110,000,000
Total Taxes	58,200,000	170,300,000
Total Jobs (average)	2,107	6,862

Cargo

Port	Types of Cargo
Caddo-Bossier	Aggregate, Coal, Steel, Fertilizer, Petrochemicals, Project Lifts
Red River Parish	Aggregate, Coal, Steel, Fertilizer, Petrochemicals, Project Lifts
Natchitoches	Aggregate, Forest Products, Asphalt
Alexandria Regional	Fertilizer, Military Cargo, Chloride, Aggregate, Petrochemicals
Avoyelles Parish	N/A-Emerging Port



Did you know?

- The \$1.9 billion Red River Waterway Project was completed in 1994
- Five lock and dam complexes provide a total lift of 140 feet the equivalent of a 14-story building
- The navigation channel has a minimum depth of 9 feet and a minimum width of 200 feet
- The U.S. Army Corps of Engineers operates and maintains the locks and dams and supervises bank stabilization and other enhancements
- Over 1.7 million visitors annually take advantage of the facilities offered by 22 recreation areas in 8 parishes along the waterway
- Over 8,400 acres of mitigation lands have been purchased to offset losses caused by project construction

Commodity Movements

Commodity	CY 2009 Short Tons	CY 2010 Short Tons
Crude Petroleum	461,933	264,710
Gasoline	552,349	334,597
Distillate Fuel Oil	927,331	397,486
Residual Fuel Oil	300,352	200,700
Nitrogenous Fertilizer	124,418	132,277
Alcohols	306,897	228,917
Ammonia	52,938	85,935
Sodium Hydroxide	154,561	135,114
Metallic Salts	3,474	36,387
Limestone	1,571,857	1,696,290
Sand & Gravel	900,963	726,062
Waterway Materials	1,295,635	1,466,528
Lime	27,019	11,251
Grains	186,072	9,978
Clasends	136,021	105,210



Ports

Port	2010 Commercial Tonnage	Jobs Sustained
Caddo-Bossier	1,700,000	7,550
Red River Parish	959,366	N/A
Natchitoches	195,113	291
Alexandria Regional	1,500,000	300
Avoyelles Parish	N/A	N/A



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Vicksburg District

Value to the Nation

Ouachita-Black Watershed



Commodity Movements

Commodity	CY 2009	CY 2010	Short Tons	Short Tons
Crude Petroleum	272,172	254,065	272,172	254,065
Distillate Fuel Oil	274,067	207,467	274,067	207,467
Residual Fuel Oil	150,280	101,113	150,280	101,113
Nitrogenous Fertilizer	40,822	3,316	40,822	3,316
Phosphorous Fertilizer	7,480	30,341	7,480	30,341
Ammonia	638	65,595	638	65,595
Sodium Hydroxide	52,836	105,552	52,836	105,552
Industrial Salts	3,987	36,597	3,987	36,597
Limestone	170,356	181,708	170,356	181,708
Sand & Gravel	17,576	0	17,576	0
Highway Materials	45,330	0	45,330	0
Grains	11,251	59,812	11,251	59,812
Other	57,712	75,495	57,712	75,495

Ports

Ports	Tonnage	Typical Cargo
Greater Ouachita	1,130,505*	Aggregates, oil, fuel, fabricated steel
Columbia	200,000**	Cotton seed and grain
*2008 Tonnage	**2007 Tonnage	

H. K. Thatcher L&D
River Mile 281.9

Felsenthal L&D
River Mile 226.9

Upper Ouachita NWR
LEBORE

Bayou d'Arbonne NWR
LINCOLN

Columbia L&D
River Mile 117.0

Jonesville L&D
River Mile 25.0

Ouachita-Black Benefits

Benefits	Value
Transportation Savings	\$1,100,000,000,000
Jobs Sustained	28,000
Annual Payroll	\$325,000,000
Impact on Economy	\$3,900,000,000,000
Taxes Paid	\$140,000,000

Recreation

18 Corps recreational areas along the 4 pools of the Ouachita-Black Navigation Project with 700,000 visitors annually - facilities include:

- 18 boat ramps with 48 lanes
- 16 day-use areas
- 1 swimming beach
- Two Class A campgrounds outgranted to local governments

Environmental Stewardship

- Originally part of the project, the 65,000 acre Felsenthal National Wildlife Refuge lies adjacent to the Ouachita River in Arkansas
- The 15,500 acre D'Arbonne National Wildlife Refuge is located on Bayou d'Arbonne in Louisiana

Flood Risk Management

Watershed management is provided through a coordinated system-wide water management program utilizing:

- Water storage reservoirs with over 3.5 million acre-feet of capacity
- Over 370 miles of levees along the Ouachita River, and in the Tensas-Cocodrie, Larto Lake to Jonesville, Sicily Island and Below Red River areas
- 120 miles of channel and tributary improvements along the Tensas River
- 5 pumping plants of 300 cfs, 500 cfs, 750 cfs, 4,000 cfs, and 6,500 cfs

Navigation

- 337-mile Ouachita-Black Navigation Project provides for a 9-foot by 100-foot navigation channel from the mouth of the Black River to Camden, AR
- 4 Locks and Dams to regulate pool height and pass navigation
- Project supports approximately 28,000 private sector jobs with an annual payroll of \$325,000,000

Water Supply

- Provides water supply for cities of Hot Springs, Malvern, Arkadelphia and Camden in Arkansas as well as Monroe, Louisiana
- Supplies water to nine major industries
- Provides water supply for crop irrigation



US Army Corps of Engineers
Vicksburg District

Value to the Nation

Arkansas Lakes



Blakely Mountain Dam - Lake Ouachita (1956)

Located along the Ouachita River in central Arkansas and surrounded by the Ouachita National Forest, the dam is 1,100 feet wide and 205 feet tall creating a lake 205 feet deep at the deepest level. The project includes 690 miles of shoreline, 40,000 acres of water and 20,000 acres of public land creating an abundance of recreational opportunities.



DeGray Lake (1972)

Located along the Caddo River in south central Arkansas, the multi-purpose project includes 32,400 acres. DeGray Dam has a crest 3,400 feet wide and rises 243 feet above the river bed. The dam creates a lake 200 feet deep at its deepest level with 207 miles of shoreline.



Narrows Dam Lake Greason (1950)

Located along the Little Missouri River in southwest Arkansas, Narrows Dam is 941 feet wide and rises to a height of the mean valley. The lake created by the dam, Lake Greason, stretches 2 miles in length and is 150 feet at its deepest level and has 134 miles of shoreline. The project contains over 16,000 acres with over 15,000 acres forested.



Friends of the Ouachita
Through an agreement with the Corps, the Friends of the Ouachita have taken on the operation of Crystal Springs and Tompkins Bend campgrounds at Lake Ouachita. Fees collected by the non-profit group are reinvested in facilities and upgrades at the lake.

Lake Ouachita Water Reallocation Study

Officials from the City of Hot Springs and the Vicksburg District executed a Memorandum of Agreement in 20 February 2013 allowing for a water supply reallocation study at Lake Ouachita.

Visitors

Project	2012 Visitors
Lake Ouachita	1,127,284
DeGray Lake	946,167
Lake Greason	362,430

Economic Impacts

Project	Economic Impact	Jobs Supported
Lake Ouachita	\$22,800,000	324
DeGray Lake	\$18,530,000	277
Lake Greason	\$7,130,000	133

A Corps First!

DeGray Lake holds the distinction as the first "pump back capable" impoundment in the history of the Corps of Engineers. A re-regulation dam forms a 400-acre impoundment directly below the main lake that serves as a storage basin for pump back capable features. During designated times, i.e. drought, the 28,000 KW generator can be reversed pulling water out of the Lower Lake into the main lake to be utilized again for hydropower generation. The 400-acre Lower Lake also serves as an ideal waterfront refuge.

Did you know?

- DeGray Lake holds the distinction as the first "pump back capable" impoundment in history of the Corps of Engineers
- Narrows Dam is the only "all concrete" dam in the Vicksburg District
- The 3 Arkansas Lakes support over 700 jobs and provide nearly \$48,000,000 in economic benefits to local economies

Blakely Mountain Dam - Lake Ouachita

Facilities include 18 recreation areas, with 18 campgrounds including five Class A areas, 7 day-use areas, 19 boat ramps with 66 lanes, and 10 swimming beaches



DeGray Lake

Facilities include 15 recreation areas, with 8 campgrounds including six Class A areas, 7 day-use areas, 11 boat ramps with 55 lanes, and 8 swimming beaches



Narrows Dam Lake Greason

Facilities include 17 recreation areas, with 12 campgrounds including five Class A areas, 7 day-use areas, 9 boat ramps with 19 lanes, and 6 swimming



US Army Corps of Engineers
Vicksburg District

Value to the Nation

Yazoo River Watershed



Benefits

Project	Average Annual Costs	Average Annual Benefits
Upper Yazoo Projects	\$17,373,000	\$52,816,000
Delta Headwaters Project	\$24,917,000	\$24,917,000

Main Stem

Consists of new and enlarged levee improvements along the Yazoo, Tallahatchie, and Coldwater Rivers from Yazoo City to Pritchard, MS, and channel clearing, cutoffs, and channel enlargement along the Yazoo, Tallahatchie and Coldwater Rivers.



Upper Yazoo Projects

Includes channel and levee features along the main channel of the Yazoo, Tallahatchie and Coldwater Rivers from the vicinity of Yazoo City, MS to the confluence of Atakulla Creek with the Coldwater River stabilization, and stream / erosion control.



Delta Headwaters Project

Consists of 16 watersheds ranging from 1 to 600 square miles, each featuring a variety of features including bank stabilization, grade control structures, floodwater-retarding structures and channel modifications for flood risk management, bank stabilization, and sediment/erosion control.



Area	FY 12 Flood Damages Prevented (\$1000)	Cumulative Flood Damages Prevented (\$1000)
Yazoo Backwater	16	98,094
Yazoo Headwaters	4,901	1,889,276
Total Yazoo Basin	4,917	1,987,370

- 4 water storage reservoirs
- 202 miles of levees
- 103 drainage structures
- 583 miles of channel
- 1 Pumping plant
- 8 Weirs
- Sediment reduction projects
- Erosion reduction measures

Environmental Stewardship

Since the early 1990s, the Vicksburg District has been involved with a flood control/sediment reduction project in the watershed which has dramatically improved water quality. Projects have included:

- Installation of low head weirs to maintain minimum water depths in channels
- Installation of 67 sediment control structures to prevent sediment from filling channels
- Water quality monitoring
- Large post-project reduction of in-stream suspended solids (TSS)

Water Quality Improvements



US Army Corps of Engineers
Vicksburg District

Value to the Nation



Mississippi Lakes

Did you know?

- Over 3 million visitors find their way to one of the lakes' facilities year.
- Visitor spending at the North Mississippi Lakes represents a sizable component of the economies of local communities surrounding the lakes.
- Visitors spend over \$120 million annually with 52% being captured by local economies.
- Visitor spending supports the addition of over 1,600 jobs.

Arkabutla Lake



Facilities include picnic areas with grills, group picnic shelters, variety of campgrounds, disc golf course, 4-mile mountain bike trail, hiking and walking trails, equestrian trail, boat ramps, ADA accessible fishing pier, ADA accessible playgrounds.

Sardis Lake



Facilities include nine campgrounds (32 Class A campsites), restrooms, showers, boat ramps, group camps sites, cabins, picnic tables with grills, fishing areas, picnic shelters, sanitary disposal systems, playgrounds, and swimming beaches.

End Lake



Facilities include campgrounds, restrooms, equestrian trail, hiking trails, off-road vehicle trail, eight playgrounds, boat ramps, and five swimming beaches.

Grenada Lake



Facilities include campgrounds, restrooms, showers, boat ramps, group camps sites, picnic tables with grills, fishing areas, group picnic shelters, sanitary disposal systems, six playgrounds, and three swimming beaches.

Benefits

Project	Average Annual Costs	Average Annual Benefits
Arkabutla Lake	\$5,000,000	\$33,300,000
Sardis Lake	\$5,000,000	\$34,200,000
End Lake	\$5,000,000	\$32,000,000
Grenada Lake	\$5,000,000	\$39,000,000

Grenada Lake (1954)

Located in the gently rolling hills of pine and hardwood at the entrance to the Mississippi Delta, the lake covers 30,000 acres and offers some of the best fishing opportunities in the Southeastern United States, and most any kind of water activity imaginable.



Economic Impacts

Project	Economic Impact	Jobs Supported
Arkabutla Lake	\$20,000,000	237
Sardis Lake	\$34,550,000	464
End Lake	\$16,280,000	190
Grenada Lake	\$54,130,000	742

End Lake (1952)

Located approximately 11 miles off Interstate 55, 72 miles south of Memphis, TN and 140 miles north of Jackson, MS, End Lake encompasses over 44,000 acres and is visited each year by more than 1.5 million visitors. End has been recognized as one of America's Top 10 Fishing Spots and is home of the world record white crappie.



Project	2012 Visitors
Arkabutla Lake	820,371
Sardis Lake	1,121,136
End Lake	974,395
Grenada Lake	1,821,815

Sardis Lake (1940)

Sardis Lake stretches over 80,000 acres thru Panola, Lafayette and Marshall Counties in northwest Mississippi. Located approximately 1 hour from Memphis, TN and 30 minutes from the University of Mississippi, the lake is a popular destination for water related recreation.



Arkabutla Lake (1943)

Located just 30 minutes from Memphis, TN and Tunica, MS, in Tate and DeSoto counties in north Mississippi, Arkabutla Lake covers over 11,000 acres and provides a variety of opportunities for all outdoor enthusiasts to enjoy.



Pearl River Watershed



Levee Plan



Consists of raising, strengthening and extending levees to provide protection against flooding.

Value to the Nation

The Pearl River originates in Neshoba County, MS and meanders approximately 444 miles to empty into Lake Borgne. The Pearl River Watershed covers some 8,760 square miles and includes all or parts of 23 Mississippi Counties parts of 3 Louisiana Parishes.

Flood Risk Management

The Jackson (Fairgrounds) and East Jackson levees were completed in 1968 by the Corps. These protective works consist of two earthen levees, four gates, outlets, and two pumping stations. Some 5.34 miles of river channel work was involved in constructing the plan. The Fairgrounds levee protects 420 acres in the Fairgrounds area of Jackson on the west side of the river. The longer East Jackson levee protects 5,870 acres, including the town of Pearl and portions of Flowwood and Richland. This project was sponsored by the Rankin-Hinds Pearl River Flood and Drainage Control District, which presently operates and maintains the levees. In 1984, an extension on the north end of the Fairgrounds levee was constructed to eliminate flanking of the levee.

Clearing of the floodway below the levee in Jackson was identified as an early action item to reduce Jackson flooding following the 1979 flood. The clearing plan, which was completed in 1984, extended from about 0.5 mile below the old Jackson sanitary landfill to Woodrow Wilson Bridge, a total of 3.3 river miles. The plan consisted of 237 acres of complete clearing, 20 acres of selective clearing, and 89 acres of partial clearing. To offset unavoidable impacts to fish and wildlife associated with the clearing plan, approximately 320 acres of bottomland hardwood were acquired as mitigation. The Pearl River Basin Development District is the local sponsor for this. In 2012, the Rankin-Hinds Pearl River Flood and Drainage Control District initiated a Section 211 Flood Risk Management Study to evaluate additional flood risk management alternatives for the Jackson, MS area. The study is funded 100 percent with non-Federal funds.

Environmental Stewardship

In all aspects of natural and cultural resources management, the Corps promotes awareness of environmental values and adheres to sound environmental stewardship, protection, compliance and restoration practices. The Corps manages for long-term public access to, and use of, the natural resources in cooperation with other Federal, State, and local agencies as well as the private sector.

In late summer and early fall, virtually all of the Pearl River flow was captured by an area known as Wilson Slough. This left the main channel of the Pearl River in the vicinity of Walkish bluff completely dry in some locations leaving property owners and local citizens with no opportunity to enjoy the benefits of the river. For more than 20 years, locals tried to get a project to restore flows in the vicinity of Walkish Bluff. Using an authority established by Congress in 1990 which provided for environmental welland restoration the Corps began the Pearl River, Walkish Bluff Flow Distribution Project. The project was designed to restore flows in the Pearl River and once again make it a viable resource for both Mississippi and Louisiana.



**US Army Corps
of Engineers**
Vicksburg District

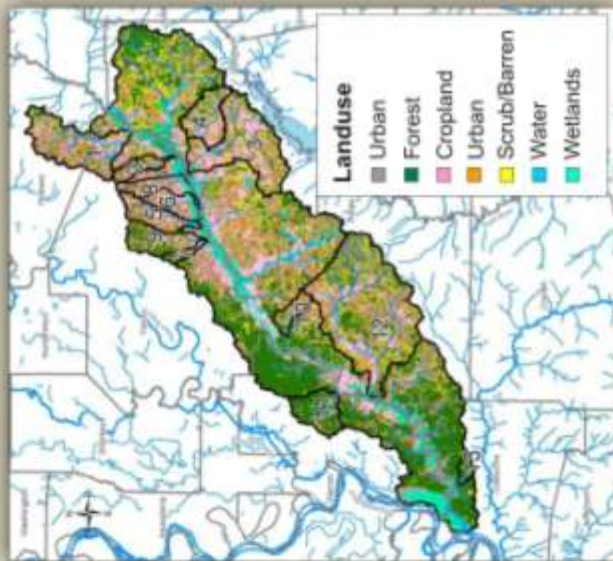
Big Black River Basin



Authority needed to combat flooding, erosion, and sedimentation problems which leads to streambank caving, loss of fish and wildlife resources, poor water quality and adds to problem of Gulf Hypoxia Zone.



Land Use in the Basin



Environmental Stewardship

Nonpoint loading of sediment in a water body results from the transport of the material into receiving waters by the processes of mass wasting, head cutting, gullying, and sheet and rill erosion. Sources of sediment include:

- Agriculture
- Silviculture
- Rangeland
- Construction sites
- Roads
- Urban areas
- Mass wasting areas
- Gullies
- Surface mining
- In-channel and instream sources
- Historical landuse activities and channel alterations



US Army Corps
of Engineers
Vicksburg District

Value to the Nation

Southwest Tributaries



The basin comprises a drainage area of approximately 3,200 square miles. All or parts of nine counties in southwestern Mississippi are included – Adams, Amite, Claiborne, Copiah, Franklin, Hinds, Jefferson, Lincoln, and Wilkinson. The basin extends in a north-south direction approximately 60 miles from just north of Port Gibson, MS, to the vicinity of the Mississippi-Louisiana state line on the south. It extends in an east-west direction approximately 55 miles from the Mississippi River on the west to Interstate 55 on the east. Three major streams—Buffalo River, Homochitto River, and Bayou Pierre drain most of the area and flow directly into the Mississippi River.

Environmental Stewardship

Seeking authority to combat flooding, erosion, and sedimentation problems which leads to streambank caving, loss of fish and wildlife resources, poor water quality and adds to problem of Gulf Hypoxia Zone.



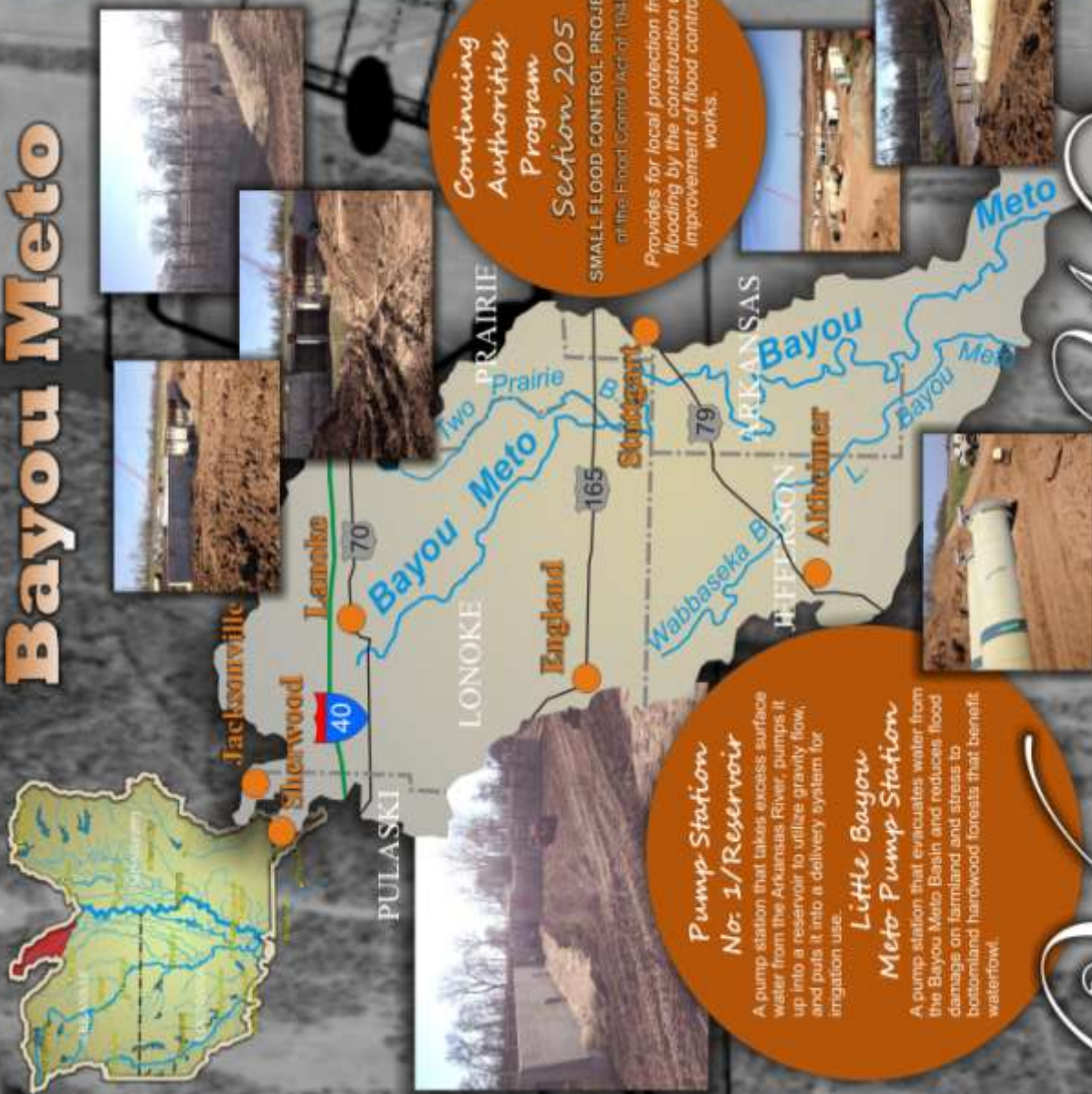
Mississippi Loess Plain 74



US Army Corps of Engineers
Vicksburg District

Value to the Nation

Bayou Meto



The project area includes Lonoke, Jefferson, Prairie, Arkansas, and Pulaski Counties and involves the study of 1,350 square miles in a 433,166 acre Improvement Project Area (IPA) with 369,874 acres of irrigated cropland.

Flood Risk Management

The project includes a pump station to evacuate water from the Bayou Meto Basin and reduces flood damage on farmland and stress to bottomland hardwood forests that benefit waterfowl management.

Jacksonville and Sherwood, AR have requested participation in individual Section 205 projects designed to assist with small flood control projects which will improve Flood Risk Management potential for the communities.

Environmental Stewardship

The project area includes 10,000 acres of herbaceous wetland complexes, along with riparian buffers and improvements to the Bayou Meto Wildlife Management Area to provide environmental restoration and enhancement features.

Water Supply

The project has features which divert excess water from the Arkansas River via a delivery system that contains pump stations, incorporates a system of new canals, existing streams, and pipelines to deliver water to depleted areas.

Project Features:

- 107 Miles of New Canal
- 1,750 CFS Pump Station
- Riparian Buffers
- 128 Miles of Channel Work
- 10,000 Acres of Herbaceous Wetland Complexes
- 132 Miles of Ditch Enlargements
- 465 Miles of New Pipeline
- Bayou Meto Wildlife Management Improvements

Continuing
Authorities
Program
Section 205

SMALL FLOOD CONTROL PROJECTS
of the Flood Control Act of 1948
Provides for local protection from
flooding by the construction or
improvement of flood control
works.

Pump Station
No. 1/Reservoir

A pump station that takes excess surface water from the Arkansas River, pumps it up into a reservoir to utilize gravity flow, and puts it into a delivery system for irrigation use.

Little Bayou
Meto Pump Station

A pump station that evacuates water from the Bayou Meto Basin and reduces flood damage on farmland and stress to bottomland hardwood forests that benefit waterfowl.



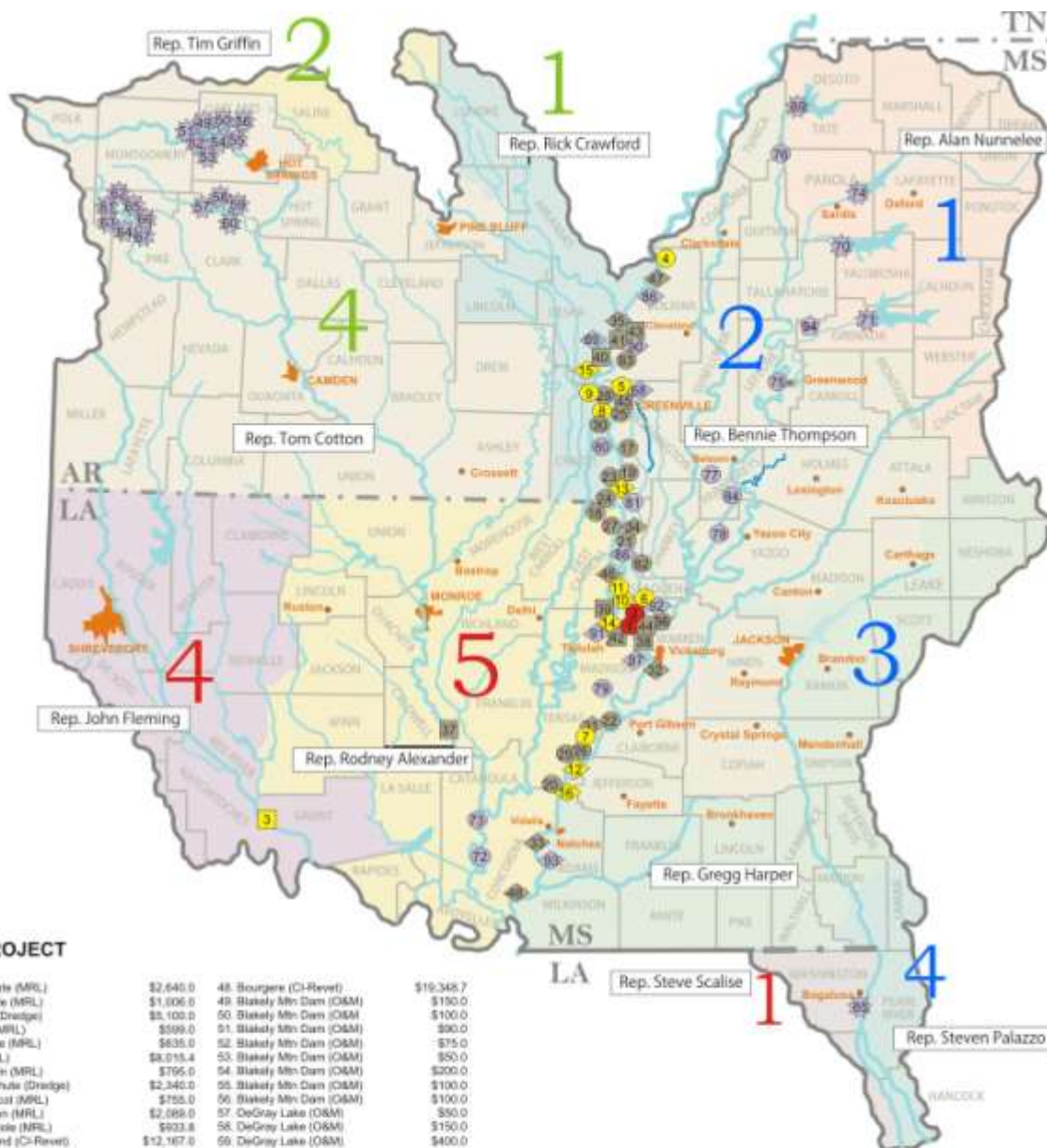
US Army Corps
of Engineers
Vicksburg District

Value to the Nation

FUNDING TABLES

FY 13 WORK IN ARKANSAS						
Cong. Dist.	Appropriation/Project	FY 12 Allocations	Supplemental Allocations	FY 13 Budget	House Amount	Senate Amount
WORK WHICH COULD BE ACCOMPLISHED WITH ADDITIONAL FUNDS					Additional Needs	Total
Investigations						
AR-4, LA-4	Red River Navigation, Southwest All, All	0	0	0	0	0
AR-4, LA-4.5	Ouachita River Watershed	0	0	0	0	100
	Total Investigations	0	0	0	0	100
Construction						
AR-4, LA-4, LA-5	Red River Bulw Dams	150	0	0	0	15,000
AR-4, LA-4	Red River Emergency	0	0	0	0	20,000
	Total	150	0	0	0	35,000
Operation and Maintenance						
AR-4	Imp of Completed Works	279	0	361	348	361
AR-4, LA-5	Ouachita & Black Rivers	7,221	3,200	7,507	7,244	7,507
	Total	7,500	3,200	10,707	7,592	10,707
AR-4	Yellow Bend Port, AR	0	485	3	3	297
AR-4	Shady Mt-Lake Ouachita	7,149	855	8,534	8,235	12,395
AR-4	DeGray Lake	5,648	700	6,881	6,840	6,881
AR-4	Narrow Dam Lake Gasson	4,291	775	4,659	4,496	4,659
	Total Operation and Maintenance	24,598	6,005	27,945	26,966	27,945
Regulatory Functions						
		3,750	0	3,750	3,488	3,750
Flood Control & Coastal Emergency		1,081	0	544	490	544
	SUBTOTAL REGULAR APPROP	29,579	6,005	32,239	30,944	32,239
						83,686
						115,825

Supplemental Funds



PROJECT

1. Buck Chute (MRL)	\$2,640.0	48. Bourgeois (CI-Revet)	\$19,348.7
2. Albertmarle (MRL)	\$1,006.0	49. Blakely Min Dam (O&M)	\$150.0
3. JBWW (Dredge)	\$5,100.0	50. Blakely Min Dam (O&M)	\$100.0
4. Francis (MRL)	\$599.0	51. Blakely Min Dam (O&M)	\$80.0
5. Winterville (MRL)	\$635.0	52. Blakely Min Dam (O&M)	\$75.0
6. Tara (MRL)	\$4,015.4	53. Blakely Min Dam (O&M)	\$50.0
7. Lake Bruin (MRL)	\$765.0	54. Blakely Min Dam (O&M)	\$200.0
8. Leland Chute (Dredge)	\$2,340.0	55. Blakely Min Dam (O&M)	\$100.0
9. Lake Choctaw (MRL)	\$755.0	56. Blakely Min Dam (O&M)	\$100.0
10. Henderson (MRL)	\$2,089.0	57. DeGray Lake (O&M)	\$50.0
11. Ice Box Hole (MRL)	\$903.8	58. DeGray Lake (O&M)	\$150.0
12. Kemp Bend (CI-Revet)	\$12,167.0	59. DeGray Lake (O&M)	\$400.0
13. Walnut Point (CI-Revet)	\$11,361.0	60. DeGray Lake (O&M)	\$100.0
14. Milliken Bend (CI-Revet)	\$3,175.0	61. Narrows Dam (O&M)	\$60.0
15. Cypress Bend (CI-Revet)	\$2,933.5	62. Narrows Dam (O&M)	\$170.0
16. Gibson (CI-Revet)	\$2,860.0	63. Narrows Dam (O&M)	\$200.0
17. Aven Cont (MRL)	\$1,608.0	64. Narrows Dam (O&M)	\$100.0
18. Wilkie Lake Cont (MRL)	\$2,938.0	65. Narrows Dam (O&M)	\$120.0
19. Lacota Cont (MRL)	\$698.0	66. Narrows Dam (O&M)	\$50.0
20. Lake St. John Cont (MRL)	\$108.0	67. Narrows Dam (O&M)	\$75.0
21. Ben Lomand Cont (MRL)	\$760.0	68. Leland Lagoon (CI-Dike)	\$1,525.0
22. Davis Landing Cont (MRL)	\$1,570.8	69. Arkabutla Lake (O&M)	\$700.0
23. Lake Jackson Cont (MRL)	\$1,123.0	70. End Lake (O&M)	\$150.0
24. Grand Lake Cont (MRL)	\$793.0	71. Granada Lake (O&M)	\$300.0
25. Greenville (MRL)	\$789.1	72. Red River BW - Sicily (MRL)	\$602.0
26. St. Joe Cont (MRL)	\$245.0	73. Red River BW - Jonesville (MRL)	\$1,596.0
27. Wilson Pt Cont (MRL)	\$1,268.8	74. Sardis Lake (O&M)	\$150.0
28. AR 225B Cont (MRL)	\$225.2	75. Main Stem (YB)	\$150.0
29. Kemper Bend Cont (MRL)	\$121.0	76. Main Stem C&Waster (Levee)	\$5,819.2
30. Lake Choctaw Pump (MRL)	\$1,811.0	77. Tribes (MRL)	\$100.0
31. Hardwoodville (CI-Revet)	\$3,642.0	78. Will Whittington (MRL)	\$100.0
32. 6/10-320 Cont (CI-Revet)	\$10,082.7	79. WB LA Levee Slides (MRL)	\$4,616.9
33. Morville (CI-Revet)	\$3,324.0	80. WB AR Levee Slides (MRL)	\$400.0
34. Mayersville (CI-Revet)	\$2,187.0	81. EB MS Levee Slides (MRL)	\$1,557.8
35. Big Island (CI-Revet)	\$0	82. Repair Sunny Markers (MRL)	\$2,000.0
36. Yazoo BW Muddy (Dn)	\$128.0	83. Gravel (MRL)	\$3,337.7
37. Ouchitche and Black (Dredge)	\$3,200.0	84. Yazoo BW Slides (MRL)	\$3,385.0
38. Mouth of Yazoo (Dredge)	\$725.5	85. Pearl River Lock 2	\$2,000.0
39. Lake Providence (Dredge)	\$3,900.0	86. Eutaw Mounds Revetment	\$5,796.8
40. Yellow Bend (Dredge)	\$465.0	87. Red Bedford Revetment	\$1,718.7
41. Rosedale (Dredge)	\$3,300.0	88. Filer-Cottonwood	\$1,986.9
42. Madison Port (Dredge)	\$750.0	89. Ashbrook Island	\$2,243.0
43. Victoria Bend (Dredge)	\$10,450.0	90. Miller Bend	\$11,520.0
44. Vicksburg Harbor (Dredge)	\$2,800.0	91. Felice Point Revetment	\$3,349.5
45. Greenville (Dredge)	\$2,100.0	92. Marshall Brown Dikes	\$13,130.0
46. Oquodich (CI-Revet)	\$10,695.0	93. Sougea Revetment	\$5,413.0
47. Dennis (CI-Revet)	\$6,179.0	94. DHP	\$2,725.0

TOTAL \$237,048.8

Vicksburg District Operation Watershed Recovery Projects

USACE FRAGO Risk Classification



Class I



Class II



Class III



Class IV

Category



MRL



Dredge



CI-Revet



O&M



Structure

Vicksburg District Operation Watershed Recovery Projects - Arkansas

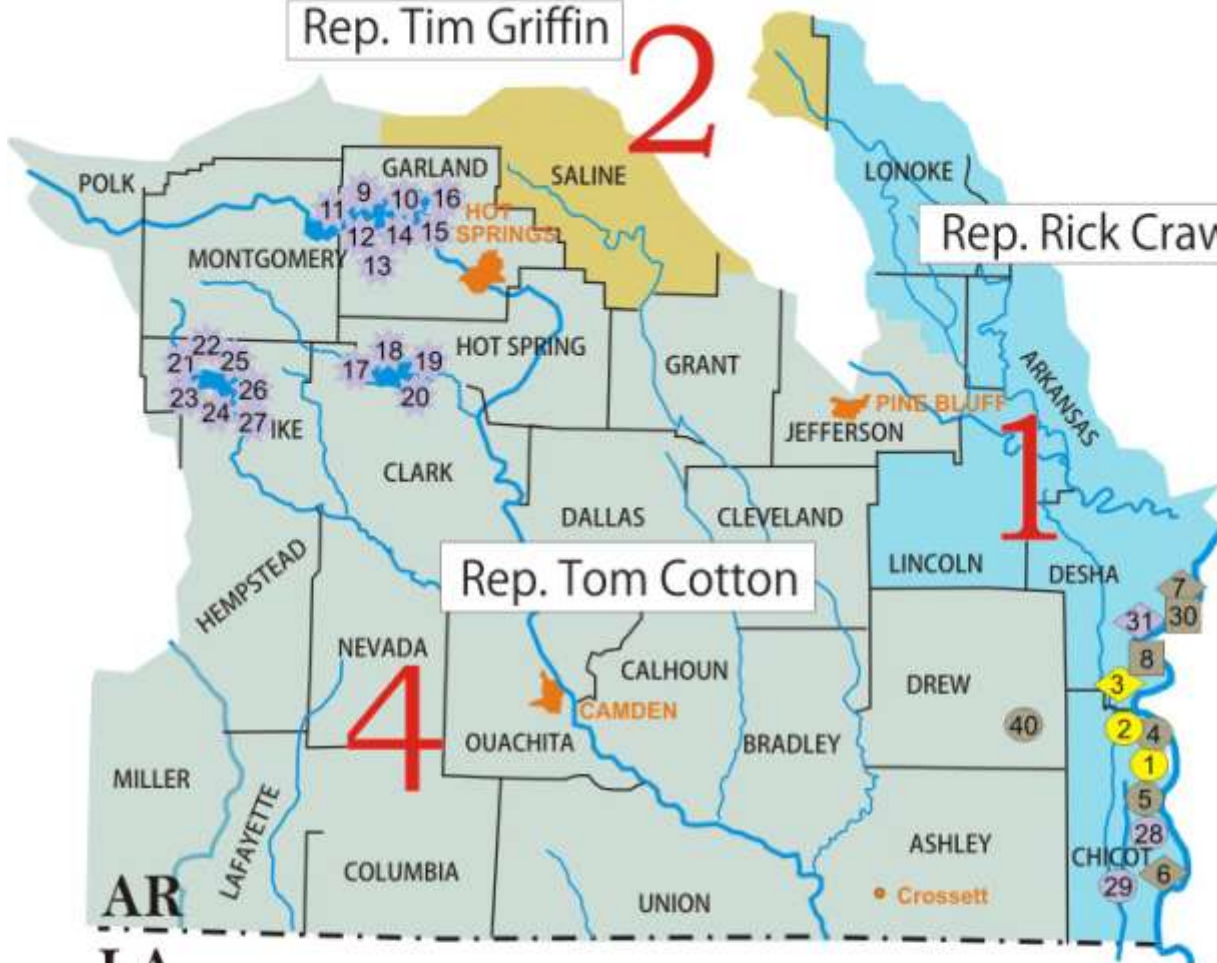
Rep. Tim Griffin

2

Rep. Rick Crawford

Rep. Tom Cotton

4



AR
LA

1. Leland Chute (MRL)	\$2,340.0
2. Lake Chicot (MRL)	\$1,613.8
3. Cypress Bend (CI-Revet)	\$2,933.5
4. AR 2250 Cont. (MRL)	\$225.2
5. Lake Chicot Pump (MRL)	\$1,611.0
6. 610-320 Cont. (CI-Revet)	\$10,082.7
7. Big Island (CI-Revet)	\$ 0.0
8. Yellow Bend (Dredge)	\$465.0
9. Blakely Mtn Dam (O&M)	\$150.0
10. Blakely Mtn Dam (O&M)	\$100.0
11. Blakely Mtn Dam (O&M)	\$90.0
12. Blakely Mtn Dam (O&M)	\$75.0
13. Blakely Mtn Dam (O&M)	\$50.0
14. Blakely Mtn Dam (O&M)	\$200.0
15. Blakely Mtn Dam (O&M)	\$100.0
16. Blakely Mtn Dam (O&M)	\$100.0
17. DeGray Lake (O&M)	\$50.0
18. DeGray Lake (O&M)	\$150.0
19. DeGray Lake (O&M)	\$400.0
20. DeGray Lake (O&M)	\$100.0
21. Narrows Dam (O&M)	\$60.0
22. Narrows Dam (O&M)	\$170.0
23. Narrows Dam (O&M)	\$200.0
24. Narrows Dam (O&M)	\$100.0
25. Narrows Dam (O&M)	\$120.0
26. Narrows Dam (O&M)	\$50.0
27. Narrows Dam (O&M)	\$75.0
28. WB AR Levee Slides (MRL)	\$400.0
29. Repair Survey Markers (MRL)	\$866.6
30. Victoria Bend (Dredge)	\$10,450.0
31. Ashbrook Island (CI-Revet)	\$2,243.0

Total MR&T & O&M \$35,370.8

USACE FRAGO Risk Classification

- Class I
- Class II
- Class III
- Class IV

Category

- MRL
- Dredge
- ◆ CI-Revet
- ⊛ O&M
- ⬢ Structure

Vicksburg District Boundary



US Army Corps
of Engineers
Vicksburg District

Project Fact Sheet Supplemental Funding - PL 112-77

O&M and MR&T, Construction and Maintenance (FRM, NAV)

Location: Throughout the Vicksburg District.

Description: The Mississippi River and Tributaries (MR&T), a legacy flood damage reduction system performed, as designed under tremendous and prolonged pressure from the historic 2011 flood event. It is the Flood of Record for most gauges between Cape Girardeau, MO and the Gulf of Mexico. Not a single life was lost to flooding in the areas across seven states protected by the MR&T system. Since its inception, the MR&T system is credited with preventing \$612 billion, or in excess of half a trillion dollars, in cumulative flood damages. At an investment level of \$14 billion, those savings result in a \$44 return on every \$1 invested. The 2011 flood fight is the first time the total watershed system required operation in a synchronized manner in order to manage the highest level of water it has ever seen.

Issues: Many of our flood control, navigation systems, and other facilities remain in a state of vulnerability and risk as a result of the Flood of 2011 and other Federally declared disasters.

Importance: Flood control systems protect lives and property. Levees hold back floodwaters; river training structures improve navigation, stabilize bends, and reduce maintenance dredging requirements. Revetment construction maintains channel alignment and protects the banks from erosion while numerous other facilities serve the many public needs across the area.

Risk: Subsequent flood seasons will require extreme vigilance and advanced preparedness to ensure safety and security of citizens, infrastructure and industry. Safe and secure Corps facilities, as well as operation of the MR&T system, is required to preserve the Nation's valuable infrastructure investment.

Consequence: Catastrophic damage to the navigation channel, river banks, and adjacent mainline levee is likely to occur if the system is not repaired/constructed as planned. During the Flood of 2011 an estimated 1.4 million residential and commercial structures, 10 million acres of land, as well as 3.6 million people would have been impacted had the MR&T not functioned as designed.



Figure 1.
LeLand – LaGrange Damage



Figure 2.
Leland – LaGrange Repairs Nearing Completion

Supplemental Funding (\$000) - FY 12-15

Project	Category	FY 12	FY 13	FY 14	FY 15
J.BJWW	Dredge	5,100.0			
Oua-Black	Dredge	3,200.0			
Mouth of Yazoo	Dredge	725.0			
Lake Providence	Dredge	3,900.0			
Yellow Bend	Dredge	465.0			
Rosedale	Dredge	3,300.0			
Madison Parish Port	Dredge	750.0			
Blakely Mt. Dam	O&M/REC	865.0			
DeGray	O&M/REC	700.0			
Narrows Dam	O&M/REC	775.0			
Pearl River	Struct	2,500.0			
MRL Const	Levees/Struc	6,693.0	25,210.2	975.0	\$0.0
CI Const	CI	14,075.5	14,415.5	521.0	
DHP	Struct	2,725.0			
MRL Maint	Levees	5,470.0	4,442.7		
CI Maint	CI/Dredge	73,130.0	37,037.5	3,323.5	
Yazoo Backwater	Levees/Struc	376.0	3,135.0		
Red River Backwater	Levees	852.0	1,346.0		
Sardis Lake	O&M/REC	150.0			
Arkabutla Lake	O&M/REC	700.0			
Enid Lake	O&M/REC	150.0			
Grenada Lake	O&M/REC	300.0			
Main Stem	Levees	3,510.0	2,409.2		
Tributaries	Levees		100.0		
Will Whittington	Levees		100.0		
Greenville Harbor	Dredge	2,100.0			
Vicksburg Harbor	Dredge	2,800.0			
Total		135,311.5	\$8,196.1	4,819.5	\$0.0

FY 12 shows actual allocations received in FY 12.

FY 13-FY 15 are current cost estimates of approved work.

Acquisition Strategy: Seven MRL items, stone bank paving associated with revetment and stone repairs, Yazoo Backwater Little Sun Borrow, and Main Stem Silver City levee setback contracts are scheduled to be awarded in FY 2013.

Amount That Could Be Used in FY 13: See table.

Project Sponsor/Customer: Mississippi Levee Board, Fifth Louisiana Levee Board, Southeast Arkansas Levee District, Red River Waterway Commission, Ouachita River Valley Association

Congressional Interest: Senate: Boozman and Pryor (AR), Landrieu and Vitter (LA), Cochran and Wicker (MS); House: Crawford (AR-1), Cotton (AR-4), Alexander (LA-5), Thompson (MS-2), and Harper (MS-3).



Figure 3.
Walnut Point/Kentucky Bend Damage



Figure 4.
Walnut Point/Kentucky Bend ACM Placed – Placing Stone Bank Paving



Investigations

Investigations

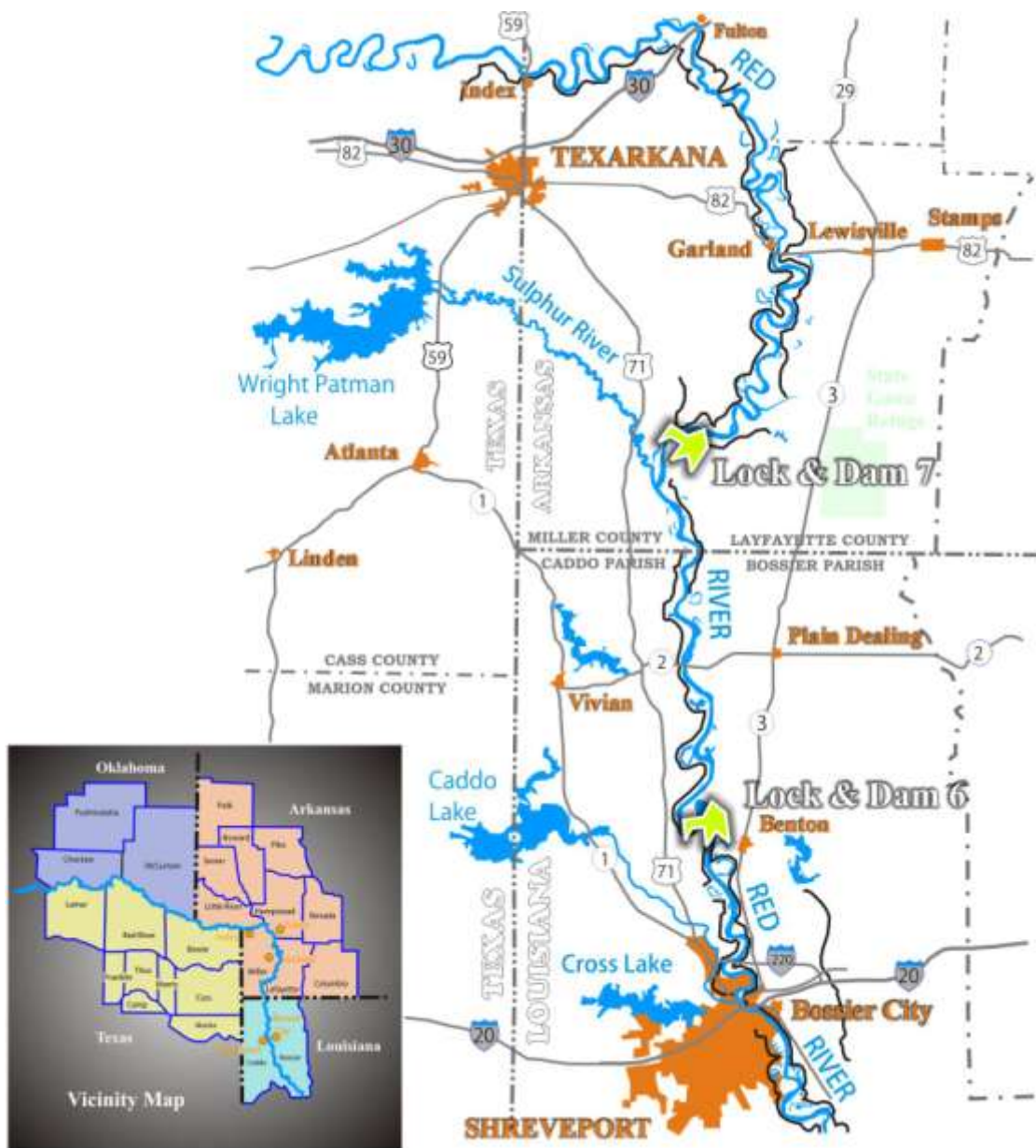
Investigations

The major objective of the Investigations program is to study projects that provide solutions to water resource problems. The Corps undertakes studies in response to directives (authorizations) from Congress. Congressional authorizations are contained in public law and in resolutions of either the House Public Works and Transportation Committee or the Senate Environment and Public Works Committee.

Most studies are conducted in two phases--reconnaissance and feasibility. The reconnaissance phase is fully funded by the Federal Government and is usually completed in 12 months. The purpose is to define the problem, opportunities, and identify potential solutions. It also determines whether or not planning should proceed into the feasibility phase based on a preliminary appraisal of the Federal interest, cost, benefits, and environmental impacts of the identified potential solution. The phase is completed upon the signing of the Feasibility Cost-Sharing Agreement (FCSA) by the Corps and a project sponsor.

The feasibility phase can take up to 3 years to complete and is cost shared equally between the Federal Government and the non-Federal sponsor. The report results in recommendations to Congress for or against Federal participation in solutions to the water resource problem and opportunities identified in the study. A recommendation for Federal participation identifies a recommended plan/project, generally for construction authorization and funding.

The Preconstruction, Engineering and Design Studies (PED) phase of project development encompasses all planning and engineering necessary for project construction, after release of the report and Division Engineer's public notice on a favorable study. Preparation of design memorandums and plans and specifications will be cost shared in accordance with the cost sharing required for project construction.



Red River Navigation, Southwest Arkansas



US Army Corps
of Engineers
Vicksburg District

Project Fact Sheet

Red River Navigation, Southwest AR, AR

1983 SAA (PL 98-63), 30 Jul 83, and WRDA 1996, Sec 402

Investigations (NAV)

Location: The study area is located in northwest Louisiana and southwest Arkansas and includes the 135 miles of the Red River between Shreveport, LA, and Index, AR.

Description: The study is investigating alternatives for extending navigation from Shreveport, LA, to Index, AR. The plan, which most closely meets the test of economic justification, consists of two locks and dams between Shreveport, LA, and Garland, AR, a distance of approximately 82 river miles.

Issues: Unless additional economic benefits can be found, the project is not economically feasible. The sponsor has posed several concerns regarding the prior transportation savings rate analysis. As a result, an agreement was reached to have the rate analysis conducted again through the Corps Navigation Center of Expertise using non-Federal sponsor contributed funds and with the understanding that the sponsor will provide an updated user survey. The Assistant Secretary of the Army, Civil Works (ASA (CW)) has approved the use of up to \$1,000,000 in contributed funds to conduct additional studies. Pending a positive outcome of those analyses, the study can then move towards completion.

Importance: The study area includes significant tonnages susceptible to waterborne transportation. The project is important to the States of Louisiana and Arkansas, the Red River Valley Association, Red River Waterway Commission, and the Arkansas Red River Commission.

Risk: Loss of significant National Economic Development and regional benefits if not constructed.

Consequence: Commodities continue to move at a higher transportation cost to the ultimate consumer.



Red River

Activities for FY 13: We are amending the Feasibility Cost-Sharing Agreement to reflect allowance of contributed funds. The amended Feasibility Cost-Sharing Agreement must be approved by Headquarters, U.S. Army Corps of Engineers.

Acquisition Strategy: No contracts are scheduled to be awarded in FY 13.

Project Sponsor/Customer: Arkansas Red River Commission

Congressional Interest: Senate: Pryor and Boozman (AR), Landrieu and Vitter (LA); House: Cotton (AR-4) and Fleming (LA-4).

Phase	Estimated Federal Cost of Phase	Federal Funding Thru FY 12	FY 13 Budget
Feasibility	\$4,370,000	\$4,068,000	\$0



Ouachita River Watershed



US Army Corps
of Engineers
Vicksburg District

Project Fact Sheet

Ouachita River Watershed, AR and LA

FCA 70 (Sec 216), as amended by WRDA 86.

Investigations (FRM)

Location: The Ouachita River Watershed is located in Arkansas and Louisiana.

Description: A reconnaissance study would update the plan for development and conservation of water and related land resources for the Ouachita River Watershed.

Issues: An updated plan is needed to examine current and future problems and needs in the Ouachita River Basin.

Importance: This potential reconnaissance plan has strong support by the Ouachita River Valley Association and other stakeholders who have been working for several years to initiate a watershed-level study for the area. A reconnaissance study will serve as a basis for both the Corps of Engineers and other agencies related to flood damage reduction, navigation, water supply (surface and ground water), bank stabilization, ecosystem restoration, and recreation as required in order to assess the extent of these problems and the Federal interest in measures to address them.

Risk: Water supply is becoming critical both from an agricultural and municipal and industrial standpoint within the basin. If these problems are not addressed, they will impact the economic growth within the basin.

Consequence: If not funded, investigation of possible solutions to water resource problems and needs within the basin will be delayed, potentially increasing the damages and negative impacts associated with flooding, agricultural water needs, and the environmental habitat.



Amount That Could Be Used in FY 13: Funds of \$100,000 could be used to prepare a reconnaissance level study to prepare an updated plan for the development and conservation of water and related land resources for the Ouachita River Watershed in Arkansas and Louisiana.

Project Sponsor/Customer: Ouachita River Valley Association

Congressional Interest: Senate: Boozman and Pryor (AR), Vitter and Landrieu (LA); House: Cotton (AR-04), Fleming (LA-4), and Alexander (LA-5).

Phase	Estimated Federal Cost of Phase	Federal Funding Thru FY 12	FY 13 Budget	FY 13 Total Capability
Reconnaissance	\$100,000	\$0	\$0	\$100,000

Construction

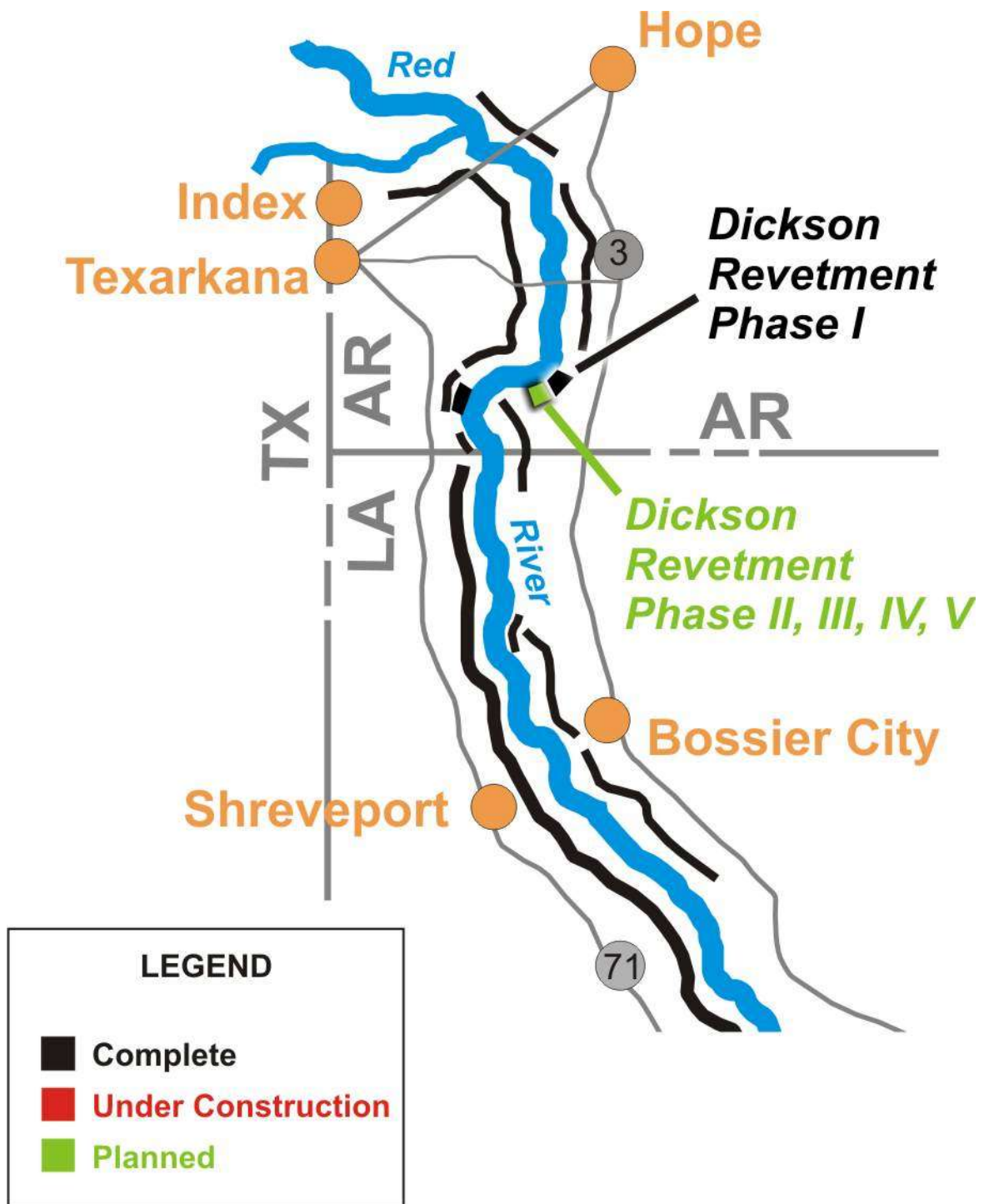
Construction



Construction

The main objective of a construction program is to complete authorized and appropriated projects as economically and quickly as practicable within program constraints and consistent with national priorities.

Under the provisions of a cost-shared project, prior to initiation of construction, the non-Federal sponsor and the government enter into a Project Partnership Agreement (PPA). The PPA describes all of the requirements and responsibilities relating to construction of the project including items of local cooperation required from the non-Federal sponsor.



Red River Emergency Bank Protection



US Army Corps
of Engineers
Vicksburg District

Red River Emergency Bank Protection, AR, LA, OK, TX

Rivers and Harbors Act of 1968; Water Resources Development Act of 1976

Construction (NAV)

Location: The project is located in northwest Louisiana, southwest Arkansas, southeast Oklahoma, and northeast Texas, along the Red and Old Rivers between the mouth of Old River at its juncture with the Mississippi River and Denison Dam, Texas.

Description: The project provides for protection of critical infrastructure and land along the river. The project plan provides for revetment, dikes, or cutoffs that can be accomplished in advance of developing the design for the entire project.

Issues: Dickson Phase I of V is complete, but with only limited success as the remaining phases are needed to prevent continued erosion towards a levee in the Long Prairie Levee District in Arkansas.

Importance: These project features are essential to maintaining the existing river channel.

Risk: Without funding, additional bank protection work cannot continue.

Consequence: Delay in bank stabilization will endanger levees, public roads and bridges, and other improvements to the river due to erosion.



Dickson Revetment Phase I

Activities for FY 13: Funds of \$20,000,000 could be used to fully fund Dickson revetment, Phases II (\$1,750,000), III (\$6,000,000), IV (\$6,000,000), and V (\$5,950,000) and initiate design of Float Revetment Phases I, II, and III (\$300,000).

Acquisition Strategy: No contracts are scheduled to be awarded in FY 13.

Project Sponsor/Customer: Multiple local levee districts

Congressional Interest: Senate: Pryor and Boozman (AR), Vitter and Landrieu (LA); House: Cotton (AR-4) and Fleming (LA-4).

Phase	Estimated Federal Cost of Phase	Federal Funding Thru FY 12	FY 13 Budget	FY 13 Total Capability
Construction	\$144,868,000	\$144,868,000	\$0	\$20,000,000



Red River Below Denison Dam



**US Army Corps
of Engineers**
Vicksburg District

Project Fact Sheet

Red River Below Denison Dam, AR, LA, and TX

Section 10, FCA 46, E&WDAA 92, 93, 94, 95, 96, 98, 02, 03, 04, 05, 06, 07, 08, 09, 10

Construction, FRM

Location: Project facilities are located along the Red River from the vicinity of Index, AR, to Boyce, LA, along the right bank, and to Pineville, LA, along the left bank.

Description: The overall project provides flood protection to about 1.7 million acres, half of which are located behind levees. The project protects the flood plain from crop damage; loss of livestock; damage to levees, railroads, highways, industries, and other river and urban developments. The authorized project provides for enlargement and/or rehabilitation of existing levees and construction of new levees or bank protection or channel realignment where levee setbacks are impossible or uneconomical.

Issues: These project features are essential to maintenance of the existing levee system. Currently these levee systems protect over 103,000 people in AR and LA. Prior levee rehabilitation work did not include new standards that have been developed post Hurricane Katrina. Levees continue not to meet current inspection standards making them ineligible for PL 84-99 funds; therefore, creating higher potential for poor performance during flood events resulting in continued flood damage to homes, farms, and other improvements. Levee rehab is required to achieve positive levee evaluations. There is risk of increased flood insurance premiums with levee decertification.

Importance: These project features are essential to maintenance of the existing levee system. Currently this levee system protects over 103,000 people and 1.7 million acres of fertile farmland in AR and LA.

Risk: Without funding, additional levee rehabilitation cannot be completed. This levee system protects over 103,000 people and 1.7 million acres of fertile farmland in AR and LA. Levee rehab is required to achieve positive levee evaluations. There is risk of increased flood insurance premiums with levee decertification.

Consequence: Without funding, flood protection for the area could be compromised and local levee districts may face levee decertification.



Levee Item 9A-I

Activities for FY 13: Funds of \$18,000,000 could be used to fully fund completion of levee rehabilitation Items 9A Phase II (\$1,500,000) and 9B (\$4,500,000) in southwest Arkansas and gravel surfacing of Red River Atchafalaya Bayou Boeuf (RRABB) Levees (\$12,000,000).

Acquisition Strategy: No contracts are scheduled to be awarded in FY 13.

Project Sponsor/Customer: Multiple local levee districts

Congressional Interest: Senate: Boozman and Pryor (AR), Vitter and Landrieu (LA); House: Cotton (AR-4), Fleming (LA-4), Alexander (LA-5).

Phase	Estimated Federal Cost of Phase	Federal Funding Thru FY 12	FY 13 Budget	FY 13 Total Capability
Construction	\$91,905,000	\$91,905,000	\$0	\$18,000,000

The 8 Authorities of the Continuing Authorities Program (CAP)

Section 14

Emergency Streambank & Shoreline Protection - Flood Control Act of 1946 as amended by WRDA 1996

This authority is to prevent erosion damages to highways, bridge approaches, public works, and other nonprofit public facilities by the emergency construction or repair of streambank and shoreline erosion protection. These are two-phase projects: Study cost for the first \$100,000 is 100% Federal with any amount over \$100,000 cost-shared 50% Federal and 50% non-Federal. Implementation costs are cost-shared 65% Federal and 35% non-Federal with a Federal funding limit of \$1.5 million per project and a national program limit of \$15 million.

Section 107

Small Navigation Projects - River and Harbor Act of 1960

This authority provides improvement to navigation including dredging of channels, widening of turning basins, and construction of navigation aids. These are two-phase projects: Study cost for the first \$100,000 is 100% Federal with any amount over \$100,000 cost-shared 50% Federal and 50% non-Federal. Implementation costs are cost-shared 80% Federal and 20% non-Federal with a Federal funding limit of \$7 million per project and a national program limit of \$35 million.

Section 205

Small Flood Control Projects - Flood Control Act of 1948 as amended by WRDA 1999

This authority for local protection from flooding by the construction or improvement of flood control works such as levees, channels, and dams. Nonstructural alternatives are also considered. These are two-phase projects: Study cost for the first \$100,000 is 100% Federal with any amount over \$100,000 cost-shared 50% Federal and 50% non-Federal. Implementation costs are cost-shared 65% Federal and 35% non-Federal with a Federal funding limit of \$7 million per project and a national program limit of \$55 million.

Section 206

Aquatic Ecosystem Restoration - Water Resources Development Act of 1996, as amended by WRDA 1996

This authority provides for restoration of degraded aquatic ecosystems. A restoration project is adopted for construction only after investigation shows that the restoration will improve the environment, and/or elements and features of an estuary is in the public interest, and is cost effective. These are two-phase projects: Study cost for the first \$100,000 is 100% Federal with any amount over \$100,000 cost-shared 50% Federal and 50% non-Federal. Implementation costs are cost-shared 65% Federal and 35% non-Federal with a Federal funding limit of \$5 million per project.

Section 1135

Project Modification for Improvements to the Environment - Water Resources Development Act of 1986 as amended by WRDA 1996 and WRDA 1999

This authority provides for ecosystem restoration through modification to Corps structures or operation of Corps structures or implementation of restoration features when the construction of Corps projects has contributed to degradation of the quality of the environment. These are two-phase projects: Study cost for the first \$100,000 is 100% Federal with any amount over \$100,000 cost shared 50% Federal and 50% non-Federal. Implementation costs are cost-shared 75% Federal and 25% non-Federal with a Federal funding limit of \$5 million per project and a national program limit of \$40 million.

Section 208

Snagging and Clearing for Flood Control- Flood Control Act of 1954

This authority provides improvements for flood control by removing accumulated snags and other debris, and clearing and straightening of the channels in streams in the interest of flood control. Study cost for the first \$100,000 is 100% Federal with any amount over \$100,000 cost-shared 50% Federal and 50% non-Federal. Implementation costs are cost-shared 65% Federal and 35% non-Federal with a \$500,000 Federal limit. This Federal cost limitation includes all project-related costs for feasibility studies, planning, engineering, construction, supervision, and administration.

Section 204

Ecosystem Restoration Projects in Connection with Dredging Water Resources Development Act of 1992, as amended

This authority provides for protection, restoration, and creation of aquatic and wetland habitats in connection with construction and maintenance dredging of an authorized project. Study cost for the first \$100,000 are 100% Federal with any amount over \$100,000 cost shared 50% Federal and 50% non-Federal. Implementation costs are cost-shared 75% Federal and 25% non-Federal.

Section 111

Mitigation of Shore Damages- Water Resources Development Act of 1968, as amended

This authority provides for the prevention or mitigation of erosion damages to public or privately owned shores along the coastline of the United States when these damages are a result of a Federal navigation project. This authority cannot be used for shore damages caused by river bank erosion or vessel-generated wave wash.

It is not intended to restore shorelines to historic dimensions, but only to reduce erosion to the level that would have existed without the construction of a Federal navigation project. Cost sharing may not be required for this program. If the Federal cost limitation is exceeded, specific Congressional authorization is required.

Study cost for first \$100,000 is 100% Federal with any amount over \$100,000 cost shared 50% Federal and 50% non-Federal. Implementation costs are cost-shared 65% Federal and 35% non-Federal with a Federal funding limit of \$5 million per project.



Operation and Maintenance

Operations and Maintenance



Operation & Maintenance (O&M)

The Operation and Maintenance program focuses on the need to preserve the existing Civil Works Infrastructure such as locks, dams, navigation channels, recreation facilities and provide adequate levels of service.



Yellow Bend Port, Arkansas



**US Army Corps
of Engineers**
Vicksburg District

Project Fact Sheet Yellow Bend Port, AR

River and Harbor Act of 1960, Section 107

Operation and Maintenance (NAV)

Location: Yellow Bend Port is an inland port on the Mississippi River, located in Desha County, AR.

Description: Yellow Bend Port was constructed in 1960 and has been maintained annually. The main channel is 1,500 feet long by 140 feet wide and the turning basin is 800 feet long by 300 feet wide. Both channels are maintained at a minimum depth of 9 feet.

Issues: Annual maintenance dredging of the port.

Importance: The port meets transportation needs for water-oriented industry in Desha and Chicot Counties, AR.

Risk: Without maintenance dredging funds, this port will lose project dimensions requiring the port to be shut down during the busiest time of the year when crops are harvested and shipped. If not dredged, the economic impact at the port would be \$600,000 and an estimated \$4,200,000 economic impact to the region. The port is currently obtaining permits to construct a rail system which would increase its annual tonnage to over 1 million tons.

Consequence: This port services many small communities and farmers in the Arkansas delta. The loss of navigation will have significant adverse economic impacts on the region.



Yellow Bend Port

Activities for FY 13: Budgeted funds will be used for surveys. Additional funds of \$297,000 could be used for dredging.

Acquisition Strategy: None.

Project Sponsor/Customer: Yellow Bend Port

Congressional Interest: Senate: Boozman and Pryor (AR); House: Cotton (AR-4).

Phase	FY 13 Budget	FY 13 Total Capability
O&M	\$3,000	\$300,000



Ouachita-Black Navigation Project



**US Army Corps
of Engineers**
Vicksburg District

Project Fact Sheet

Ouachita-Black Navigation Project, AR

River and Harbor Act of 1950 as modified by River and Harbor Act of 1960

Operation and Maintenance (NAV, FRM, REC, ENS)

Location: The project for navigation on the Ouachita/Black Rivers extends 366 miles from the mouth of the Black River to Camden, Arkansas.

Description: The project provides for a 9- by 100-foot navigation channel and also includes a diversion channel through Catahoula Lake near Jonesville, Louisiana, for ecological reasons.

Issues: Funding will allow minimum dredging and reduced lockages at the locks and dams. With reduced dredging, the project will have less than authorized project depth for much of the year requiring shippers to light load or cease commercial navigation operations.

Importance: Recent river trends have shown a higher need for dredging at the approaches to the locks. Without dredging the lock approaches, the locks may become inaccessible affecting 32 companies and 18 shippers. TETRA Technologies, Inc., out of Crossett, Arkansas, is dependent on the project to transport calcium chloride and calcium bromide; Bunge Corporation at Jonesville, Louisiana, is dependent on the project for transportation of farm products; Monroe and surrounding areas depend on the project for transportation of gasoline; commercial fishermen depend on the project for income; and the public recognizes the project as an important source of recreation.

Risk: Without dredging, the project will have less than authorized project depth for much of the year requiring shippers to light load or cease commercial navigation operations. Navigation could be closed, causing private sector workforce layoffs, along with traffic congestion and product price increases. Failure to have stoplog slots could cause closure of navigation channel.

Consequence: Loss of navigation would have significant adverse economic impacts to the region. Significant private sector workforce layoffs would occur. Approximately 28,000 private sector jobs with an annual payroll of \$325,000,000 are connected to the Ouachita-Black. Navigation above RM 281 would be closed in the event lock chamber repairs are required at H. K. Thatcher.



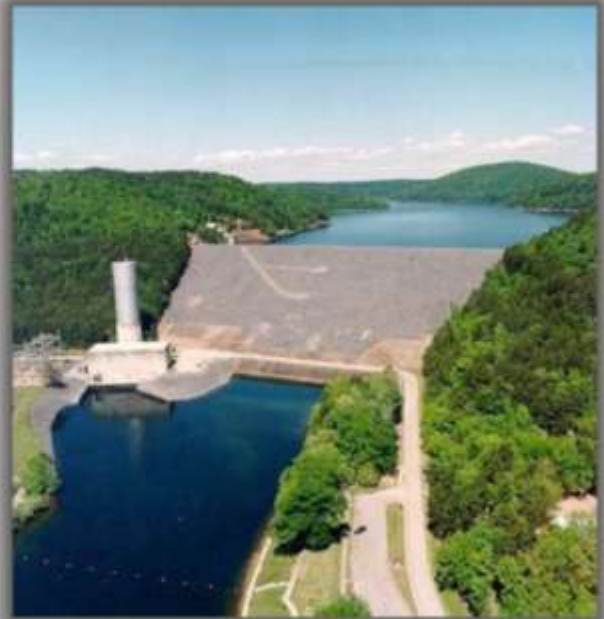
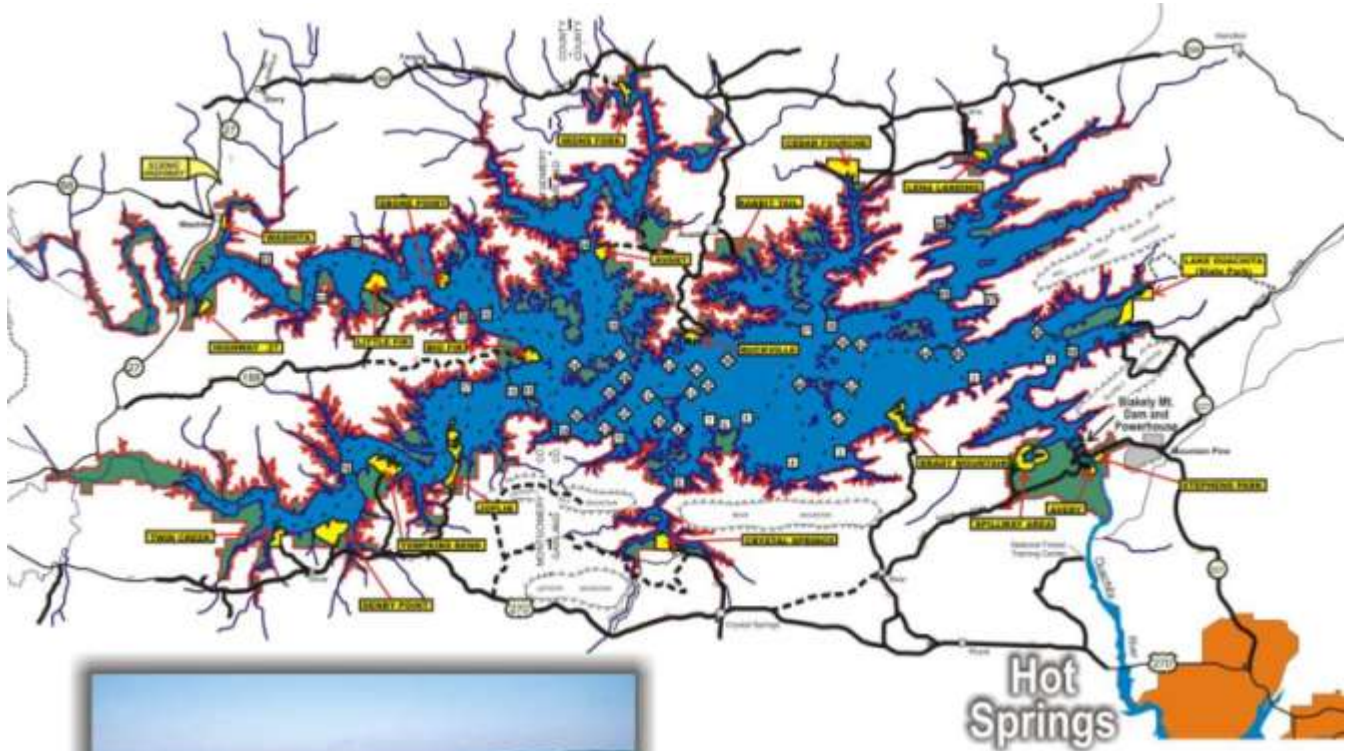
Activities for FY 13: Budgeted funds are being used to continue operations of four locks and dams and minimal dredging. Additional funds of \$24,691,000 could be used for additional maintenance dredging and routine maintenance (\$3,125,000) to provide a 9- x 100-foot navigation channel on the waterway; construct stoplog slots in lockwalls at H. K. Thatcher L&D (\$6,000,000); replace administration building at Columbia (\$435,000); repair slopes alongside access road at Felsenthal (\$1,030,000); repair concrete on base/anchorage on hydraulic cylinder of hinged crest gate at Thatcher (\$145,000); dewater and inspect lock chamber floor at Columbia (\$1,275,000); dewater and inspect lock chamber floor at Jonesville (\$1,260,000); sandblast, paint, and replace anodes on miter gates at Jonesville (\$800,000); sandblast and paint and replace seals on dam tainter gates at Columbia (\$204,000); sandblast, paint, and replace cathodic protection on dam tainter gates at Felsenthal (\$674,000); replace steel grating and ladders on lock walls and sandblast and paint hydraulic piping at Felsenthal (\$300,000); replace bracing and cathodic protection on dam tainter gates at Thatcher (\$317,000); replace timber fenders and cathodic protection on miter gates at Thatcher (\$212,000); sandblast, paint, and replace timber fenders and cathodic protection on miter gates at Columbia (\$313,000); replace steel and timber fenders and cathodic protection on miter gates at Felsenthal (\$269,000); repair access roads and parking areas at Columbia (\$400,000); repair roof on administration building and control house at Felsenthal (\$265,000); dewater, remove, sandblast, paint and reinstall four tainter valves at H. K. Thatcher (\$400,000); clean and repaint striping on bullnoses at H. K. Thatcher (\$60,000); repair roof on control house and administration building at H. K. Thatcher (\$265,000); repair access road at H. K. Thatcher (\$300,000); replace high water pilings at Jonesville (\$150,000); replace and add high water pilings at Columbia Lock and Dam (\$175,000); repair stoplog welds (\$250,000); repave access road at Jonesville (\$400,000); replace lock approach and dam warning signs at Jonesville (\$239,000); replace lock approach and dam warning signs and handrails at Columbia (\$280,000); repair quoin blocks at Columbia (\$263,000); replace lock approach and dam warning signs at Thatcher (\$239,000); replace ladders on lock walls at Thatcher (\$71,000); realignment of access to boat ramps and repave parking areas at six recreational areas (\$3,500,000); bank stabilization and boat dock replacement at Moon Lake Recreation Area (\$550,000); and demolish existing comfort station and replace with pre-fab ADA compliant waterborne comfort station at five areas (\$525,000).

Acquisition Strategy: None.

Project Sponsor/Customer: Ouachita River Valley Association

Congressional Interest: Senate: Boozman and Pryor (AR), Vitter and Landrieu (LA); House: Cotton (AR-4) and Alexander (LA-5).

Phase	FY 13 Budget	FY 13 Total Capability
O&M	\$7,507,000	\$32,198,000



**Blakely Mountain Dam/
Lake Ouachita, Arkansas**



**US Army Corps
of Engineers**
Vicksburg District

Project Fact Sheet

Blakely Mountain Dam/Lake Ouachita, AR

Flood Control Act of 1944, Section 10

Operation and Maintenance (FRM, HYD, REC, ENS)

Location: Blakely Mountain Dam/Lake Ouachita is located on the Ouachita River in Garland and Montgomery Counties, Arkansas, west of Hot Springs, Arkansas.

Description: The project consists of earth-fill dam, power plant, and lake for hydropower generation, flood control, recreation, water supply, and natural resources management. Storage capacity is 2,768,000 acre-feet. The power plant has a generating capacity of 75,000 kilowatts. There are 22 campgrounds and recreation areas on the project. Annual public visitation to the project is approximately 4,500,000.

Issues: Normal operation and maintenance activities are ongoing. Repairs to flood damaged items were accomplished with supplemental funding with limitation to specific business lines. Campground availability will be the same levels as in FY 12.

Importance: Blakely Mountain Dam/Lake Ouachita is an economic engine for the local and regional area. The lake produces in excess of \$16 million in direct economic benefits to the area while directly supporting over 320 jobs in the region. In FY 12, Blakely Mountain Power Plant generated 158,945 kilowatt-hours of hydroelectric power and since being placed in operation, has produced gross revenues of over \$74.1 million. Hydropower production, outdoor recreation opportunities, and extensive flood damage reduction enhance the direct regional benefits derived from this project.

Risk: Impacts of slight reduction in funding will be spread across all business lines with the largest cut potentially in the O&M contract. These will have a minor impact to level of service and may slightly delay routine maintenance. Overall, the project risks are minimal with inadequate visitor services.

Consequence: Visitor assistance activities, enforcement of Rules and Regulations, environmental stewardship and natural resource protection activities will be reduced due to lack of adequate staff to accomplish those duties and meet program objectives. In addition, loss of strategic support for programs and community partnerships will eliminate positive relationships that have proven to leverage Federal dollars at a rate of 5 to 1 for project initiatives and benefit.



Blakely Mountain Dam and Lake Ouachita

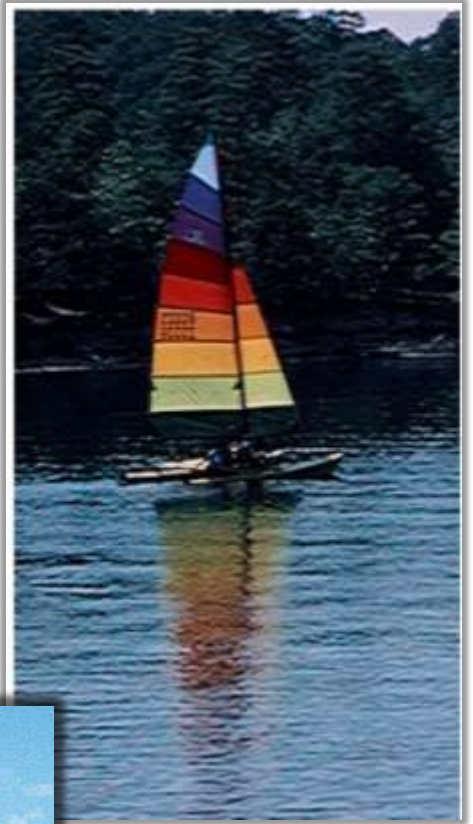
Activities for FY 13: Budgeted funds are being used to maintain same level of service and campground availability as in FY 12. Additional funds of \$12,395,000 could be used to achieve acceptable level of service (\$1,211,000), road paving (\$700,000), rehabilitation of power tunnel interior (\$2,300,000), riprap upstream side of Blakely Dam (\$6,000,000), ADA upgrades (\$84,000), electrical system upgrades (\$250,000), replace two wastewater plants (\$275,000), replace generator bay floor (\$75,000), and repair butterfly valve actuator (\$1,500,000).

Acquisition Strategy: No contracts are scheduled to be awarded in FY 13.

Project Sponsor/Customer: N/A

Congressional Interest: Senate: Boozman and Pryor (AR); House: Cotton (AR-4).

Phase	FY 13 Budget	FY 13 Total Capability
O&M	\$8,534,000	\$20,929,000



Lake Ouachita, Arkansas



US Army Corps
of Engineers
Vicksburg District

Project Fact Sheet

Lake Ouachita Water Storage Reallocation

Flood Control Act of 1944, Section 10

Operation and Maintenance (FRM, HYD, REC, ENS)

Location: Blakely Mountain Dam/Lake Ouachita is located on the Ouachita River in Garland and Montgomery Counties, Arkansas, west of Hot Springs, Arkansas.

Description: The project's specifically authorized purposes are flood control and hydropower. The project consists of earth-fill dam, power plant, lake for hydropower generation, flood control, recreation, water supply, and natural resources management. Storage capacity is 2,768,000 acre-feet at the top of the flood control pool. The reservoir covers approximately 48,300 acres at the top of the flood control pool and captures runoff from 1,105 square miles of drainage area above the dam.

Issues: Water storage reallocation studies were suspended in May 2011 due to a shortage of O&M funds. Available O&M funds are needed for other priority work on the project. We have received approval to accept sponsor-contributed funds as a way-ahead for the study.

Importance: Mid Arkansas Water Alliance (MAWA) is comprised of 27 water systems in the state which represent approximately one-fourth of the state's population. Therefore, storage reallocation at Lake Ouachita is extremely important to the State of Arkansas, in particular, central Arkansas. Economic growth and social well-being are dependent upon adequate supplies of fresh water.

Risk: Lack of fresh water in central Arkansas to sustain economic and population growth. Water supply for the city of Hot Springs is especially critical.

Consequence: Economic growth will be curtailed in central Arkansas due to a lack of available fresh water.



Blakely Mountain Dam and Lake Ouachita

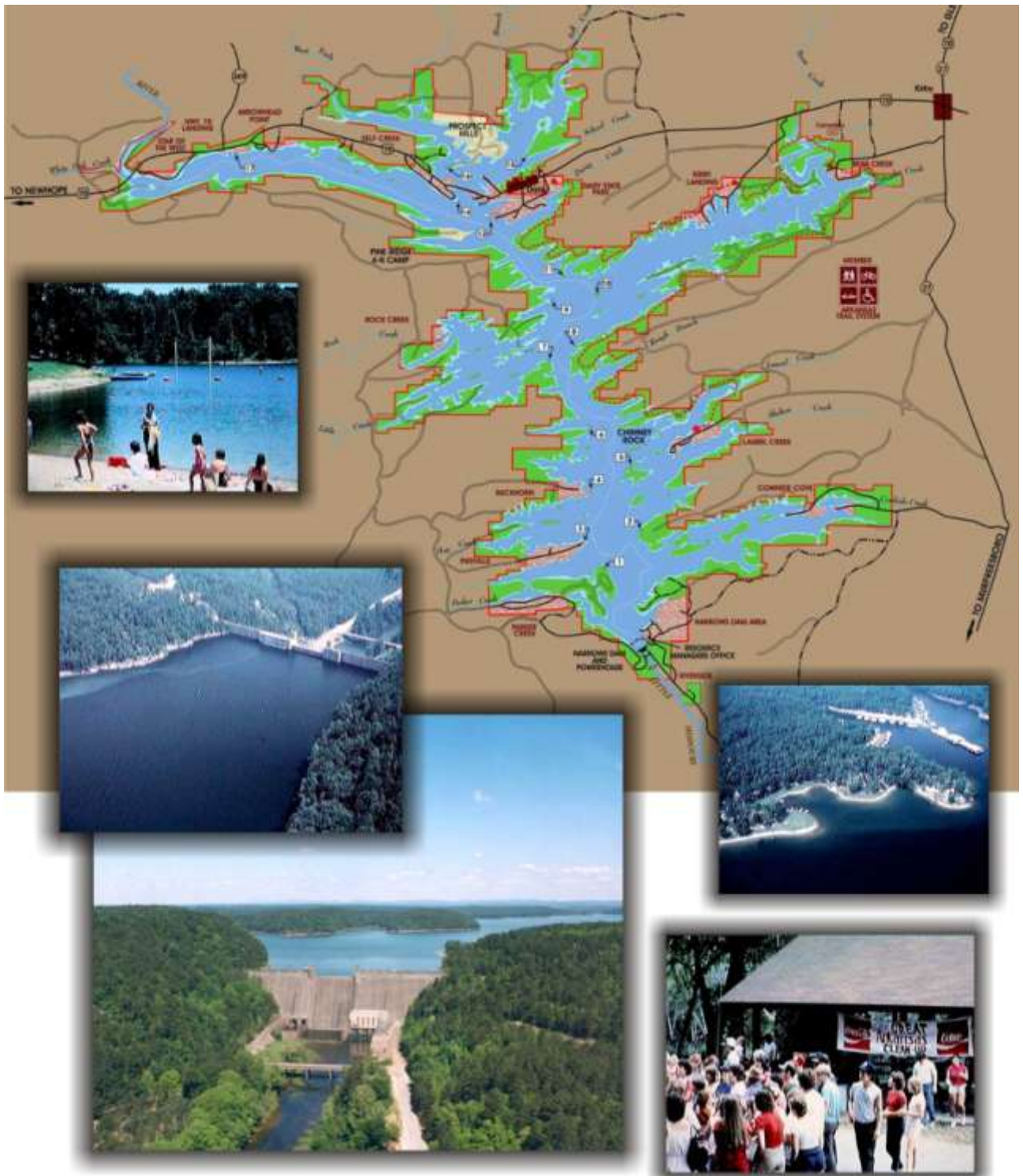
Activities for FY 13: Approval to accept contributed funds and commence negotiations with the sponsor was received on 12 July 2012. We have received HQUSACE approval to execute a Memorandum of Agreement (MOA) for acceptance of contributed funds which will be used to restart the reallocation study. MOA was executed on 28 February 2013. We have received \$150,000 from the city of Hot Springs. Study completion should take 18 to 24 months to complete.

Acquisition Strategy: No contracts are scheduled to be awarded in FY 13.

Project Sponsor/Customer: Mid Arkansas Water Alliance

Congressional Interest: Senate: Boozman and Pryor (AR); House: Griffin (AR-02) and Cotton (AR-4).

Phase	FY 13 Allocation	FY 13 Total Capability
O&M	\$50,000	\$50,000



Narrows Dam/ Lake Greeson, Arkansas



**US Army Corps
of Engineers**
Vicksburg District

Project Fact Sheet

Narrows Dam/Lake Greeson, AR

Flood Control Act of 1944

Operation and Maintenance (FRM, HYD, REC, ENS)

Location: Narrows Dam/Lake Greeson is located on the Little Missouri River in Pike County, AR, north of Murfreesboro, AR.

Description: The project consists of a concrete dam, power plant and lake for hydropower generation, flood control, recreation, water supply, and natural resources management. Storage capacity of the lake is 407,000 acre-feet. The power plant has a generating capacity of 25,500 kilowatts. There are 16 campgrounds and recreation areas on the project. Annual public visitation to the project is approximately 2,000,000.

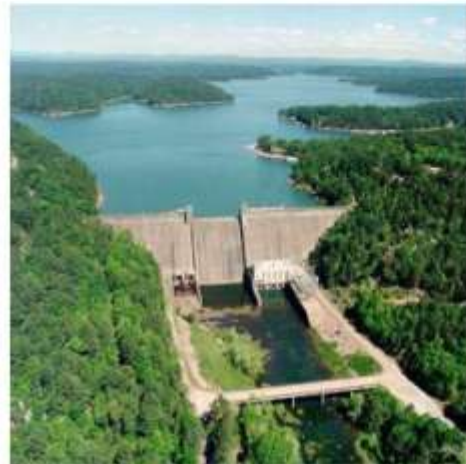
Issues: Normal operation and maintenance activities are ongoing. Campground availability will be the same as FY 12.

Importance: Narrows Dam/Lake Greeson is an economic engine for the local and regional area. The lake produces in excess of \$7 million in direct economic benefits to the area while directly supporting over 132 jobs in the region. In FY 12 Narrows Power Plant generated 40,113 kilowatt-hours of hydroelectric power and since being placed in operation, has produced gross revenues of over \$29.6M. Hydropower production, outdoor recreation opportunities and extensive flood damage reduction enhance the direct regional benefits derived from this project.

Risk: Rupture or loss of a transformer creates potential destruction of the Little Missouri River ecosystem and contamination of the City of Murfreesboro water supply. Impacts of decreased buying power will be spread across all business lines. These impacts may have a minor impact to level of service and may slightly delay routine maintenance. Overall, the project risks are minimal with inadequate visitor services.

Consequence: A spill from damaged power production transformer(s) could cause irreparable environmental damage to the downstream ecosystem of the River. Visitor assistance activities, enforcement of Rules and Regulations, environmental stewardship and natural resource protection activities will be reduced due to lack of adequate staff to accomplish those duties and meet program objectives.

Loss of strategic support of programs and community partnerships will eliminate positive relationships that have proven to leverage Federal dollars at a rate of 5 to 1 for project initiatives and benefit.



Narrows Dam/Lake Greeson

Activities for FY 13: Budgeted funds are being used to maintain same level of service and campground availability as in FY 12. Additional funds of \$1,982,000 could be used to achieve acceptable level of services (\$532,000), modernization of Bear Creek campground (\$700,000), rehabilitation of 11 shower buildings (\$550,000), and installation of a transformer oil containment system (\$200,000).

Acquisition Strategy: No contracts are scheduled to be awarded in FY 13.

Project Sponsor/Customer: N/A

Congressional Interest: Senate: Boozman and Pryor (AR); House: Cotton (AR-4).

Phase	FY 13 Budget	FY 13 Total Capability
O&M	\$4,659,000	\$6,641,000



DeGray Lake, Arkansas



**US Army Corps
of Engineers**
Vicksburg District

River and Harbor Act of 1950, and Water Supply Act of 1958, as amended by Federal Water Pollution Control Act of 1961

Project Fact Sheet DeGray Lake, AR

Operation and Maintenance (FRM, HYD, REC, ENS)

Location: DeGray Lake is located on the Caddo River in Clark and Hot Spring Counties, AR, northwest of Arkadelphia, AR.

Description: The project consists of an earth-fill dam, power plant and lake for hydropower generation, flood control, recreation, water supply, and natural resources management. Storage capacity of the lake is 495,100 acre-feet. The power plant has a generating capacity of 68,000 kilowatts. There is a re-regulating pool below the main dam for water supply storage and pumped-storage power generation. Storage capacity is 495,100 acre-feet. Eighteen campgrounds and recreation areas are located on the project. Annual public visitation to the project is approximately 3,000,000.

Issues: Normal operation and maintenance activities are ongoing. Repairs to flood damaged items were accomplished with supplemental funding with limitation to specific business lines. Campground availability will be the same as FY 12.

Importance: DeGray Lake is an economic engine for the local and regional area. The lake produces in excess of \$15 million in direct economic benefits to the area while directly supporting over 271 jobs in the region. In FY 12 DeGray Power Plant generated 85,040 kilowatt-hours of hydroelectric power and since being placed in operation, has produced gross revenues of over \$40.2M. Hydropower production, outdoor recreation opportunities, and extensive flood damage reduction enhance the direct regional benefits derived from this project.

Risk: Impacts of slight reduction in funding will be spread across all business lines with the largest cut potentially in the O&M contract. These will have a minor impact to level of service and may slightly delay routine maintenance. Overall, the project risks are minimal with inadequate visitor services.

Consequence: Visitor assistance activities, enforcement of Rules and Regulations, environmental stewardship and natural resource protection activities will be reduced due to lack of adequate staff to accomplish those duties and meet program objectives. Loss of strategic support for program and community partnerships will eliminate positive relationships that have proven to leverage Federal dollars at a rate of 5 to 1 for project initiatives and benefit.



DeGray Dam and Lake

Activities for FY 13: Budgeted funds are being used to maintain same level of service as in FY 12. Additional funds of \$5,892,000 could be used to achieve acceptable levels of service (\$1,267,000), replace field office (\$2,000,000), replace sewer plant (\$150,000), replace shower building at Point Cedar (\$225,000), road repair/paving (\$1,500,000), road repair/paving at Oak Bower access (\$500,00), and replace 120/480 distribution breaker panels (\$250,000).

Acquisition Strategy: No contracts are scheduled to be awarded in FY 13.

Project Sponsor/Customer: N/A

Congressional Interest: Senate: Boozman and Pryor (AR); House: Cotton (AR-4).

Phase	FY 13 Budget	FY 13 Total Capability
O&M	\$6,881,000	\$12,773,000



Mississippi River & Tributaries Investigations

Mississippi River & Tributaries Investigations

MR&T Investigations

The major objective of the MR&T Investigations program is to study projects that provide solutions to water resource problems for the area within the MR&T authorized project, generally from the area along the Mississippi River from Cairo, IL, to the Gulf of Mexico. The Corps undertakes studies in response to directives (authorizations) from Congress. Congressional authorizations are contained in public law and in resolutions of either the House Public Works and Transportation Committee or the Senate Environment and Public Works Committee.

Most studies are conducted in two phases—reconnaissance and feasibility. The reconnaissance phase is fully funded by the Federal Government and is usually completed in 12 months. The purpose is to define the problem, opportunities, and identifying potential solutions. It also determines whether or not planning should proceed into the feasibility phase based on a preliminary appraisal of the Federal interest, cost, benefits, and environmental impacts of the identified potential solution. The phase is completed upon the signing of the Feasibility Cost-Sharing Agreement (FCSA) by the Corps and a project sponsor.

The feasibility phase can take up to 3 years to complete and is cost shared equally between the Federal Government and the non-Federal sponsor. The report results in recommendations to Congress for or against Federal participation in solutions to the water resource problem and opportunities identified in the study. A recommendation for Federal participation identifies a recommended plan/project, generally for construction authorization and funding.

The Preconstruction, Engineering and Design Studies (PED) phase of project development encompasses all planning and engineering necessary for project construction, after release of the report and Division Engineer's public notice on a favorable study. Preparation of design memorandums and plans and specifications will be cost shared in accordance with the cost sharing required for project construction.



Southeast Arkansas, Arkansas



**US Army Corps
of Engineers**
Vicksburg District

Resolution of the Senate Committee on Environment and Public Works adopted 23 June 1988

Project Fact Sheet Southeast AR, AR

Mississippi River and Tributaries, Investigations (FRM)

Location: The Southeast AR, AR, project area includes the Boeuf-Tensas and Bayou Bartholomew Basins of southeast Arkansas. Counties included are Jefferson, Lincoln, Drew, Ashley, Chicot, and Desha.

Description: The study is addressing current flooding, ecosystem restoration and water supply problems and needs throughout the 1.2-million-acre watershed.

Issues: Flooding between November 1982 and January 1983 caused damages in excess of \$47 million to approximately 1,170,000 acres of primarily agricultural lands in the Boeuf-Tensas Basin. Significant ecosystem restoration opportunities have been identified since completion of the reconnaissance report. Extensive multipurpose water use has induced ground-water reduction and salt water intrusion in the area. Flood damage reduction and ecosystem restoration are in the Federal interest and justify continuation of this important effort.

Importance: Prolonged periods of inundation are causing infrastructure, agricultural, and environmental damages within the study area. In addition to those damages, future agricultural water supply needs could be in jeopardy without additional water supply options and this could cause land use to convert from agriculture to non-agricultural uses.

Risk: There are approximately 430,000 acres of agricultural lands currently flooded by the existing 100-year flood event.

Consequence: If not funded, ongoing feasibility studies would be suspended delaying investigation of possible solutions to water resource problems and needs and thereby delaying flood risk management and agricultural water supply solutions to approximately 430,000 acres of agricultural lands within the 100-year flood plain.



Activities for FY 13: Non-Federal funds are being used to rescope the project and revise the Feasibility Cost-Sharing Agreement.

Acquisition Strategy: No contracts are scheduled to be awarded in FY 13.

Project Sponsor/Customer: Arkansas Natural Resources Commission and Boeuf-Tensas Regional Irrigation Water Distribution District

Congressional Interest: Senate: Boozman and Pryor (AR); House: Cotton (AR-4) and Crawford (AR-1).

Phase	Estimated Federal Cost of Phase	Federal Funding Thru FY 12	FY 13 Budget	FY 13 Total Capability
Feasibility	\$5,153,000	\$4,936,000	\$0	\$217,000

Mississippi River and Tributaries Project Area



**Collection and Study of Basic Data,
Arkansas, Louisiana, and Mississippi**



US Army Corps
of Engineers
Vicksburg District

Project Fact Sheet

Collection and Study of Basic Data, AR, LA, MS

Flood Control Acts of 1928, Sections 1, 2, 3, and 10

Mississippi River and Tributaries, Investigations (FRM)

Location: The Collection and Study of Basic Data project is located throughout the Vicksburg District in AR, LA, and MS.

Description: Data collected consist of information on stream flow, sediments and nutrients, rainfall, floods, and other items of related hydrologic nature.

Issues: Data collected under this activity are for authorized flood control projects for which funds have been appropriated in the Memphis, Vicksburg, and New Orleans Districts. Data are used by numerous agencies and the public to determine when flooding will occur and to plan for any evacuations. In addition, the Environmental Protection Agency and state environmental quality agencies are now recognizing water quality as a critical element in environmental protection planning and construction. These data are vital to show projects are in conformance with state and Federal laws.

Importance: Data collection is essential in the planning, design, and construction and O&M of authorized flood control projects, especially significant after the Flood of 2011.

Risk: Without adequate funding, the District would lose the ability to make accurate flood predictions.

Consequence: If not funded, essential hydraulic and hydrologic and water quality data would not be collected and therefore data would not be available to accurately predict future flood and drought conditions on major rivers within the District.

Mississippi River
and
Tributaries
Project Area



Activities for FY 13: Budgeted funds are being used to collect essential basic data used in planning and design of authorized flood control projects. Additional funds of \$2,080,000 could be used to fully fund collection of essential hydrologic data used in flood predictions, planning and design of authorized flood control projects across the District (\$400,000), aquatic and water quality monitoring within the Vicksburg District (\$480,000), and continue LIDAR mapping in the Vicksburg District (\$1,200,000).

Acquisition Strategy: No contracts are scheduled to be awarded in FY 13.

Project Sponsor/Customer: Mississippi Levee Board

Congressional Interest: Senate: Boozman and Pryor (AR), Landrieu and Vitter (LA), Cochran and Wicker (MS); House: Crawford (AR-1), Cotton (AR-4), Scalise (LA-1), Fleming (LA-4), Alexander (LA-5), Nunnelee (MS-1), and Thompson (MS-2).

Phase	Estimated Federal Cost of Phase	Federal Funding Thru FY 12	FY 13 Budget	FY 13 Total Capability
Feasibility	N/A	N/A	\$170,000	\$2,250,000

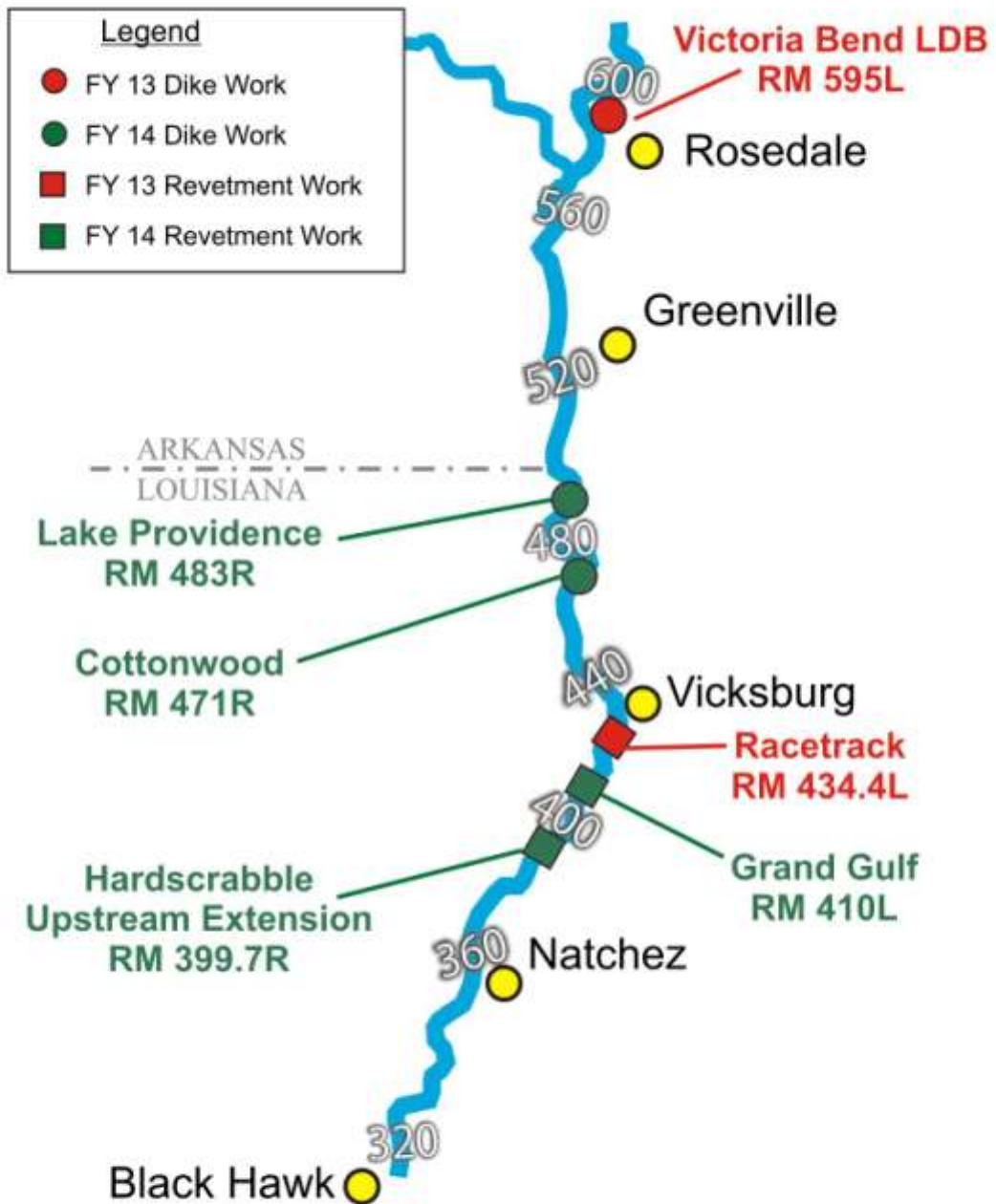


Mississippi River & Tributaries Construction

Mississippi River & Tributaries Construction

MR&T Construction

The objective of the MR&T construction program is to construct and complete authorized and appropriated MR&T projects as economically and quickly as practicable within program constraints and consistent with current national priorities.



Mississippi River Channel Improvement



**US Army Corps
of Engineers**
Vicksburg District

Project Fact Sheet

Mississippi River Channel Improvement, AR, LA, & MS

Flood Control Acts of 1928 (Section 1); 1936 (Section 1); 1938 (Section 4); 1941 (Section 3); 1944 (Section 10); 1962 (Section 203); 1965 (Section 201, 204); 1966 (Section 202, 203); and 1970 (Section 207)

Mississippi River and Tributaries, Construction (FRM, NAV)

Location: The project is located in the Mississippi River and along its banks from the vicinity of Cessions Towhead at River Mile 616 AHP, to Union Point at River Mile 326 AHP, a distance of approximately 290 miles.

Description: The plan of improvement consists of stabilization of the Mississippi River main channel in a desirable alignment for purposes of flood control and navigation by means of revetments, river training structures (dikes, chevrons, and bendway weirs), and improvement dredging.

Issues: The Lower Mississippi River experienced the flood of record at many locations during 2011. Many channel improvement features including both revetments and dikes were damaged.

Importance: River training structures improve navigation conditions, stabilize bends, and reduce maintenance dredging requirements. Revetment construction maintains channel alignment and protects the banks from erosion.

Risk: Catastrophic damage to the navigation channel, river banks, and adjacent mainline levee is likely to occur if the system is not constructed as authorized.

Consequence: Failure to adequately fund will result in channel deterioration which would adversely impact the navigation industry in economically and efficiently transporting commodities on the Mississippi River. Continued erosion of banks and/or failure of revetments would adversely impact channel alignment and threaten the integrity of the mainline levee system.



Stone Dike Construction



Revetment Construction – Articulated Concrete Mat (ACM)

Activities for FY 13: Budgeted funds are being used for dike construction at Victoria Bend Left Descending Bank (LDB), MS, and for revetment construction at Racetrack, MS. The 2011 flood damage repairs have been prioritized on a regional basis. Additional funds of \$26,400,000 could be used to fully fund dike construction at Lake Providence, LA-RM483R (\$8,800,000), Racetrack Towhead, MS-RM 432R (\$4,500,000) and Willow Cutoff, LA-RM-462.8R (\$1,500,000), and construct an upstream extension to the existing revetments at Grand Gulf (\$4,460,000) and Togo Island (\$7,140,000). Supplemental funds of \$13,200,000 will be used for design and construction of the regional priority repairs within MVK during FY 13. Repairs consist of construction of four stone dikes at Marshall Brown, MS, to replace 12 stone hard points destroyed during the 2011 flood.

Acquisition Strategy: Articulated concrete mat (ACM) is being placed at one high priority site, Racetrack, and will be placed by in-house hired labor. Three contracts will be awarded in FY 13. One contract is for stone bank paving associated with revetment. Stone bank paving is required at all revetment sites at which the bank is graded to a stable slope. Contracts for dike construction at Victoria Bend LDB and Marshall Brown will also be awarded.

Project Sponsor/Customer: Navigation industry, environmental community, and Mississippi Levee, ⁵⁰ Louisiana Levee, and Southeast Arkansas Levee Boards.

Congressional Interest: Senate: Boozman and Pryor (AR), Landrieu and Vitter (LA), Cochran and Wicker (MS); House: Crawford (AR-1), Cotton (AR-4), Alexander (LA-5), Thompson (MS-2), and Harper (MS-3).

Phase	Estimated Federal Cost of Phase	Federal Funding Thru FY 12	FY 13 Budget	FY 13 Supplemental	FY 13 Total Capability (Regular)
Construction	\$1,241,000,000	\$971,004,000	\$20,614,000	\$1,786,500	\$47,014,000



Mississippi River & Tributaries Maintenance

Mississippi River & Tributaries Maintenance



Mississippi River and Tributaries

MR&T Maintenance

The MR&T Maintenance program focuses on the need to preserve the existing infrastructure and provide justified levels of service at the least cost.





**US Army Corps
of Engineers**
Vicksburg District

Project Fact Sheet

Tensas Basin, Boeuf-Tensas River, AR and LA

Flood Control Acts of 1944, 1946, 1950, 1958, 1962, 1965, 1968, and WRDA of 1986

Mississippi River and Tributaries, Maintenance (FRM)

Location: The flood control project is located in central and northeast Louisiana and southeast Arkansas and includes the Lake Chicot pumping plant.

Description: The project provides for channel improvement for flood control and to afford adequate outlet drainage for 5,300 square miles in southeast Arkansas and northeast Louisiana.

Issues: Critical work is needed to ensure the integrity of the project to protect people and property from flooding. This critical work consists of inspecting the under slab and backfill drains for siltation to ensure proper drainage of the substrate under the downstream slab of the pumping plant to prevent uplift. The tributaries in the Boeuf-Tensas Basin have aging weirs that have already failed or are in danger of failing and need replacing. If the current electrical bus fails, there is no backup power to the plant and flooding will occur in southeast Arkansas. Severe erosion and corrosion have been discovered on multiple pumping plant components that need repairs to prevent catastrophic pump failure.

Importance: The Lake Chicot Pumping Plant diverts local storm-water runoff into the Mississippi River upstream of Lake Chicot in Chicot County, AR. The proper operation of this pumping plant significantly reduces the amount of storm runoff that must be transferred by the Boeuf-Tensas River system from southeast Arkansas through Louisiana into the Ouachita-Black River system. The portion of the Boeuf-Tensas River system in southeast Arkansas is contained by a series of weirs in the various tributaries that are 50-60 years old and have reached their design and in some cases their useful life. These weirs effectively control the rate of runoff and the amount of in-channel vegetation present in the tributary channels reducing the annual maintenance costs for these channels to the local sponsors of the project.

Risk: Leaving the project in disrepair may lead to reduced levels of flood protection and flooding in southeast Arkansas.

Consequence: Failure to operate and maintain channels and weirs would jeopardize the project integrity and benefits.



Lake Chicot Pump Plant

Activities for FY 13: Budgeted funds are being used to continue operation and maintenance at a reduced level of service. Additional funds of \$4,604,000 could be used to conduct repairs to Lake Chicot Pumping Plant (failed electrical bus to the plant (\$2,100,000) and conduct repairs to severe erosion and corrosion on multiple pumping plant components (\$2,504,000).

Acquisition Strategy: No contracts are scheduled to be awarded in FY 13.

Project Sponsor/Customer: Tensas Basin Levee District

Congressional Interest: Senate: Boozman, Pryor (AR); Vitter, Landrieu (LA); House: Cotton (AR-4), Alexander (LA-5).

Phase	FY 13 Budget	FY 13 Total Capability
Maintenance	\$1,839,000	\$6,443,000



Mississippi River Levees, AR, LA, and MS



**US Army Corps
of Engineers**
Vicksburg District

FCA's 1928, 1936, 1938, 1941, 1944, 1946, 1950, 1954, 1962, 1965, 1968, River Basin Monetary
Authorization Act of 1971, WRDA 92, WRDA 00

Project Fact Sheet

Mississippi River Levees, AR, LA & MS

Mississippi River and Tributaries, Maintenance (FRM)

Location: The Mississippi River Levee system on the west bank extends from Allenville, MO, southward to Venice, LA, and on the east bank from Hickman, KY, to opposite Venice, LA, except where interrupted by hills and tributary streams.

Description: The Mississippi River Levee System provides flood risk reduction to over 23 thousand square miles in the alluvial valley subject to flooding by the project flood. The alluvial valley is over 650 miles long and varies in width from 20 to 90 miles. Numerous railroads, highways, and airfields connecting the major transportation centers lie within the protected area as do several major transcontinental communication routes. In addition to highly developed agricultural areas, the levees afford protection to urban areas and many industries.

Issues: Levee slides are being repaired along the Mississippi River Levee System on the East and West banks utilizing supplemental funding. Additional slides are developing as a result of heavy rainfall in December 2012 and January 2013.

Importance: Although levee slides are an expected occurrence in any levee system, the repair of levee slides is of prime importance in maintaining a robust levee system capable of performing its design function during all flood events up to and including the project design flood.

Risk: Leaving slides in disrepair may lead to levee safety issues, levee certification issues, reduced levels of flood protection, and increased risk of flood damage.

Consequence: Failure to operate and maintain the levees appropriately jeopardizes project integrity, and places the safety of the public at increased risk.



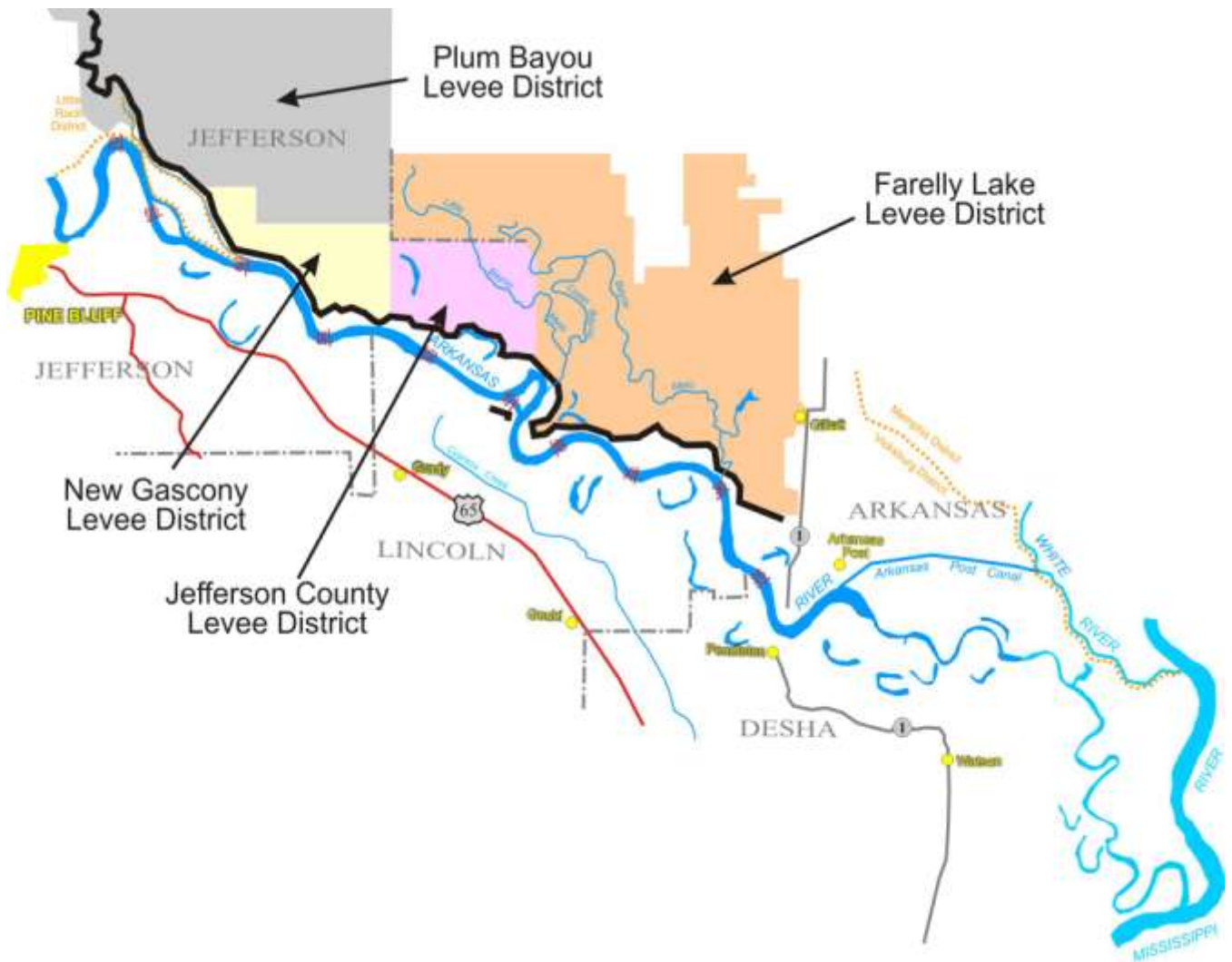
Two Levee Slides

Activities for FY 13: Budgeted funds are being used to perform routine operation and maintenance activities, repair levee slides, and resurfacing levees.

Project Sponsor/Customer: 5th LA Levee District, Southeast Arkansas Levee District, and the Board of Mississippi Levee Commissioners

Congressional Interest: Senate: Boozman and Pryor (AR), Landrieu and Vitter (LA), Cochran and Wicker (MS); House: Crawford (AR-1), Cotton (AR-4), Scalise (LA-1), Fleming (LA-4), Alexander (LA-5), Nunnelee (MS-1), Thompson (MS-2).

Phase	FY 13 Budget	FY 13 Total Capability
Maintenance	\$1,690,000	\$1,690,000



Lower Arkansas River, North Bank, Arkansas



**US Army Corps
of Engineers**
Vicksburg District

Project Fact Sheet

Lower Arkansas River, North Bank, AR

Flood Control Acts of 1928, 1936, 1946, and 1965

Mississippi River and Tributaries, Maintenance (FRM)

Location: The flood control project is located in southeast Arkansas.

Description: The lower Arkansas River levees prevent overflow of the alluvial valleys of the Arkansas River below the Pine Bluff, Arkansas. The north bank levee in conjunction with the west bank Mississippi River levee protects the Tensas Basin against flooding.

Issues: Critical work is needed to ensure the integrity of the levee system to protect people and property from flooding. This work consists of repairing levee slides and placing additional granular material on the levees to provide all weather access to the levees for flood fighting and inspection.

Importance: The lower Arkansas River levees prevent overflow of the alluvial valleys of the Arkansas River below Pine Bluff, Arkansas. Levees along the north bank, extending from Tucker in the vicinity of Pine Bluff to the vicinity of Gillett, protect approximately 720 square miles. The south bank levee in conjunction with the west bank MRL protects the Tensas Basin against the project flood.

Risk: Leaving slides in disrepair may lead to levee safety issues, levee certification issues and reduced levels of flood protection and higher risks.

Consequence: Failure to operate and maintain would jeopardize the project integrity and cause potential levee failure and flooding as in 2011.



Lower Arkansas River, North Bank Levee

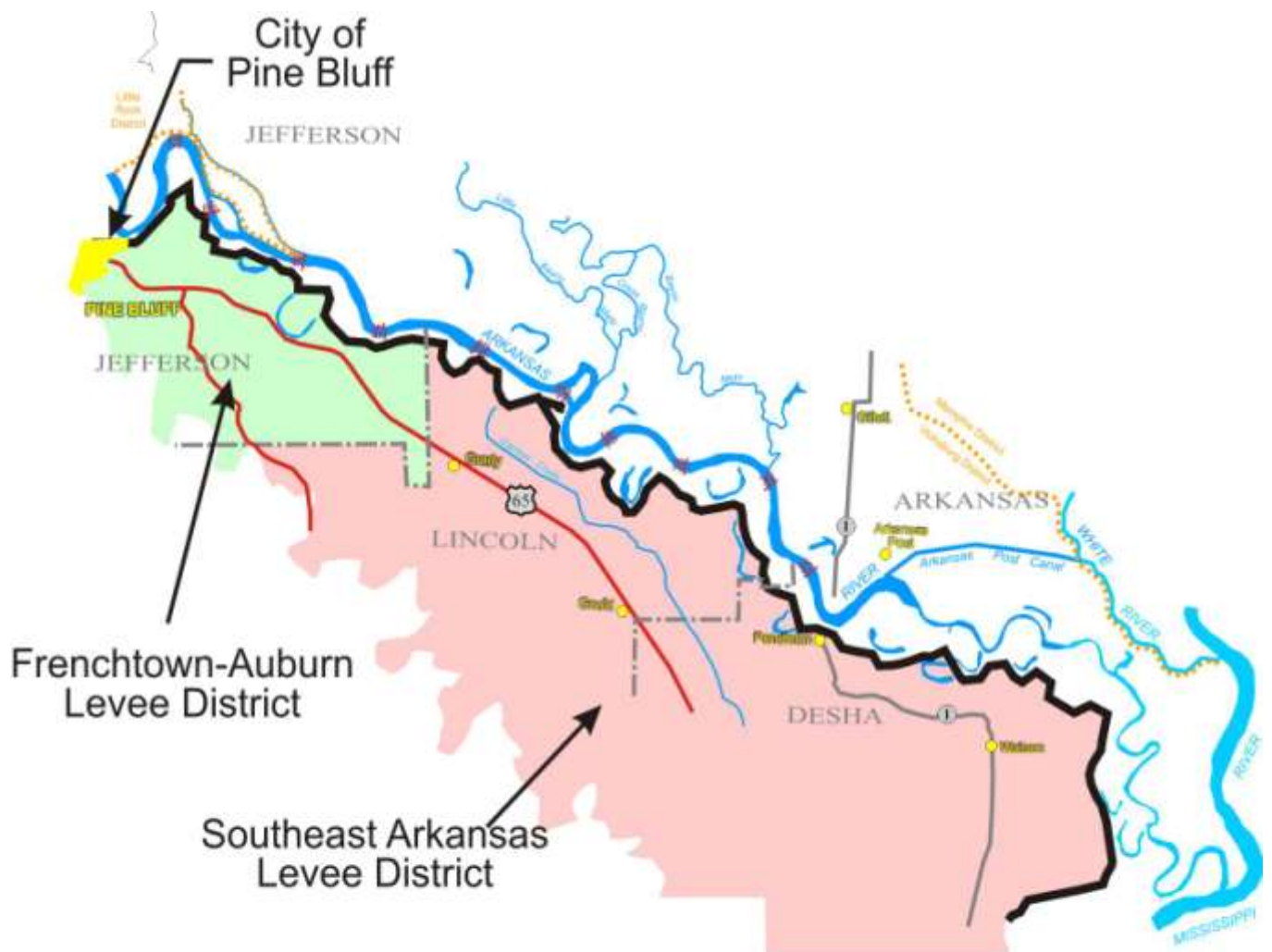
Activities for FY 13: Budgeted funds are being used to continue operation and maintenance of project features. Additional funds of \$400,000 could be used for critical levee slide repairs (\$100,000) and to place stone surfacing on levees (\$300,000).

Acquisition Strategy: No contracts are scheduled to be awarded in FY 13.

Project Sponsor/Customer: N/A

Congressional Interest: Senate: Boozman, Pryor (AR); House: Cotton (AR-4).

Phase	FY 13 Budget	FY 13 Total Capability
Maintenance	\$287,000	\$687,000



Lower Arkansas River, South Bank, Arkansas



**US Army Corps
of Engineers**
Vicksburg District

Project Fact Sheet

Lower Arkansas River, South Bank, AR

Flood Control Acts of 1928, 1936, 1946, and 1965

Mississippi River and Tributaries, Maintenance (FRM)

Location: The flood control project is located in southeast Arkansas.

Description: The lower Arkansas River levees prevent overflow of the alluvial valleys of the Arkansas River below the Pine Bluff, Arkansas. The north bank levee in conjunction with the west bank Mississippi River levee protects the Tensas Basin against flooding.

Issues: Critical work is needed to ensure the integrity of the levee system to protect people and property from flooding. This work consists of repairing levee slides and placing additional granular material on the levees to provide all weather access to the levees for flood fighting and inspection.

Importance: The lower Arkansas River levees prevent overflow of the alluvial valleys of the Arkansas River below Pine Bluff, Arkansas. Levees along the north bank, extending from Tucker in the vicinity of Pine Bluff to the vicinity of Gillett, protect approximately 720 square miles. The south bank levee in conjunction with the west bank MRL protects the Tensas Basin against the project flood.

Risk: Leaving slides in disrepair may lead to levee safety issues, levee certification issues and reduced levels of flood protection and higher risks.

Consequence: Failure to operate and maintain would jeopardize the project integrity and cause potential levee failure and flooding as in 2011.



Lower Arkansas River, South Bank Levee

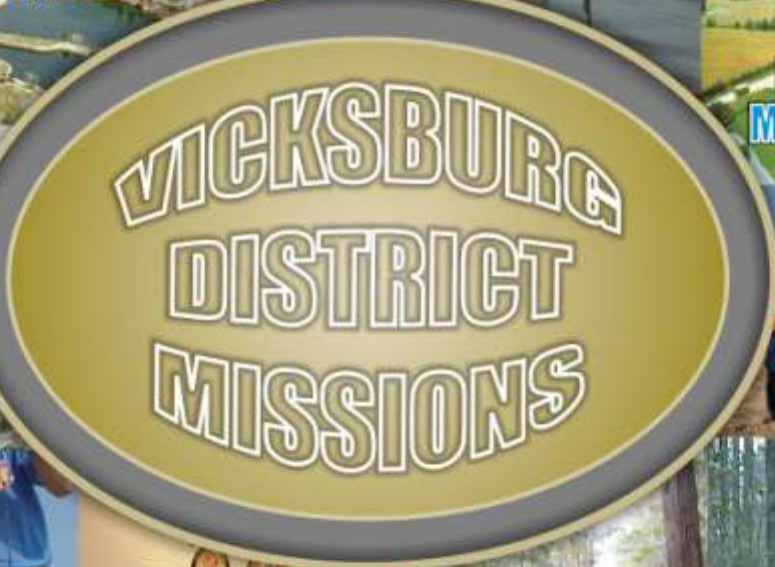
Activities for FY 13: Budgeted funds are being used to continue operation and maintenance of project features. Additional funds of \$400,000 could be used for critical slide repairs (\$100,000) and to place stone surfacing on levees (\$300,000).

Acquisition Strategy: None.

Project Sponsor/Customer: N/A

Congressional Interest: Senate: Boozman and Pryor (AR); House: Cotton (AR-4).

Phase	FY 13 Budget	FY 13 Total Capability
Maintenance	\$193,000	\$593,000





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